

# FLIGHT FOLDER

Flight No. A 462

DATE: 26 16 196

Take off : 09 28 41  
Landing : 15 33 23

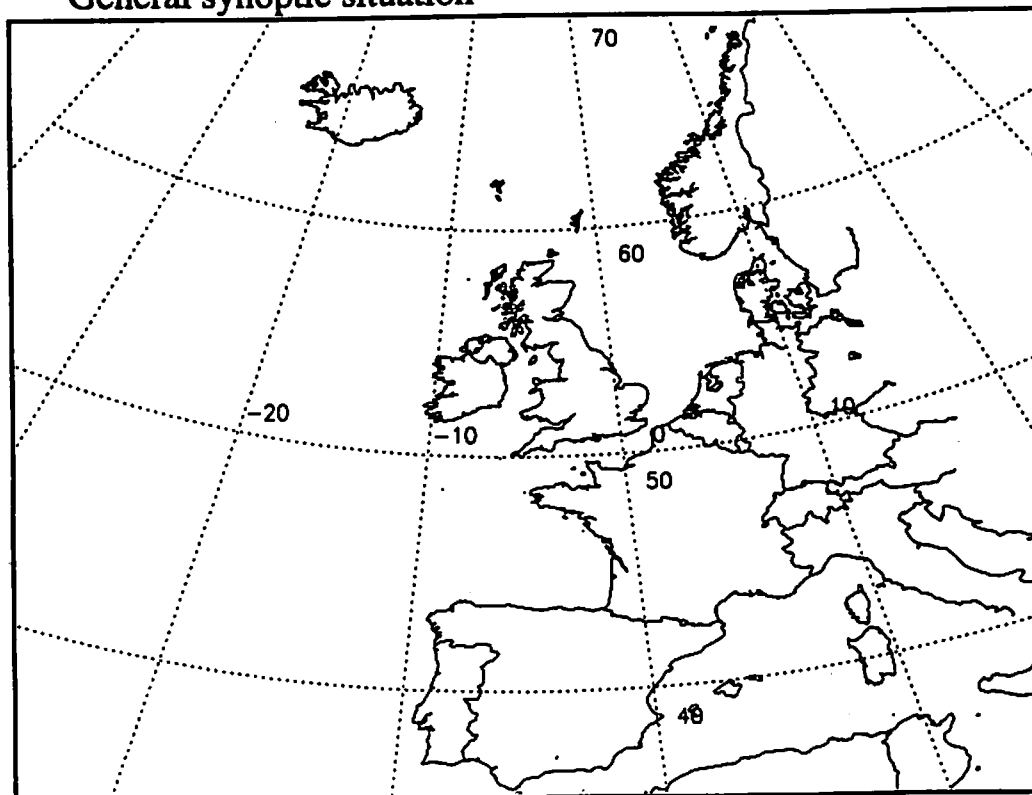


Aircraft Scientist	: A KAYE / H RICHER	Captain	: C O'BRIEN
Flight Leader	: O BRIGGS	Co-pilot	: M PURSE
Others	: M PICKERING	Navigator	: J ATKES
	J PANTRY	Engineer	: K QUICK
		Loadmaster	: J CANNING
	I RULE / J CRAWFORD		
	K DEWEY / S KENT / S KESSLER		
	S OS BOENE		
	M RULE		
	S WILSON		
	W DAVIES		

Trials Instructions :

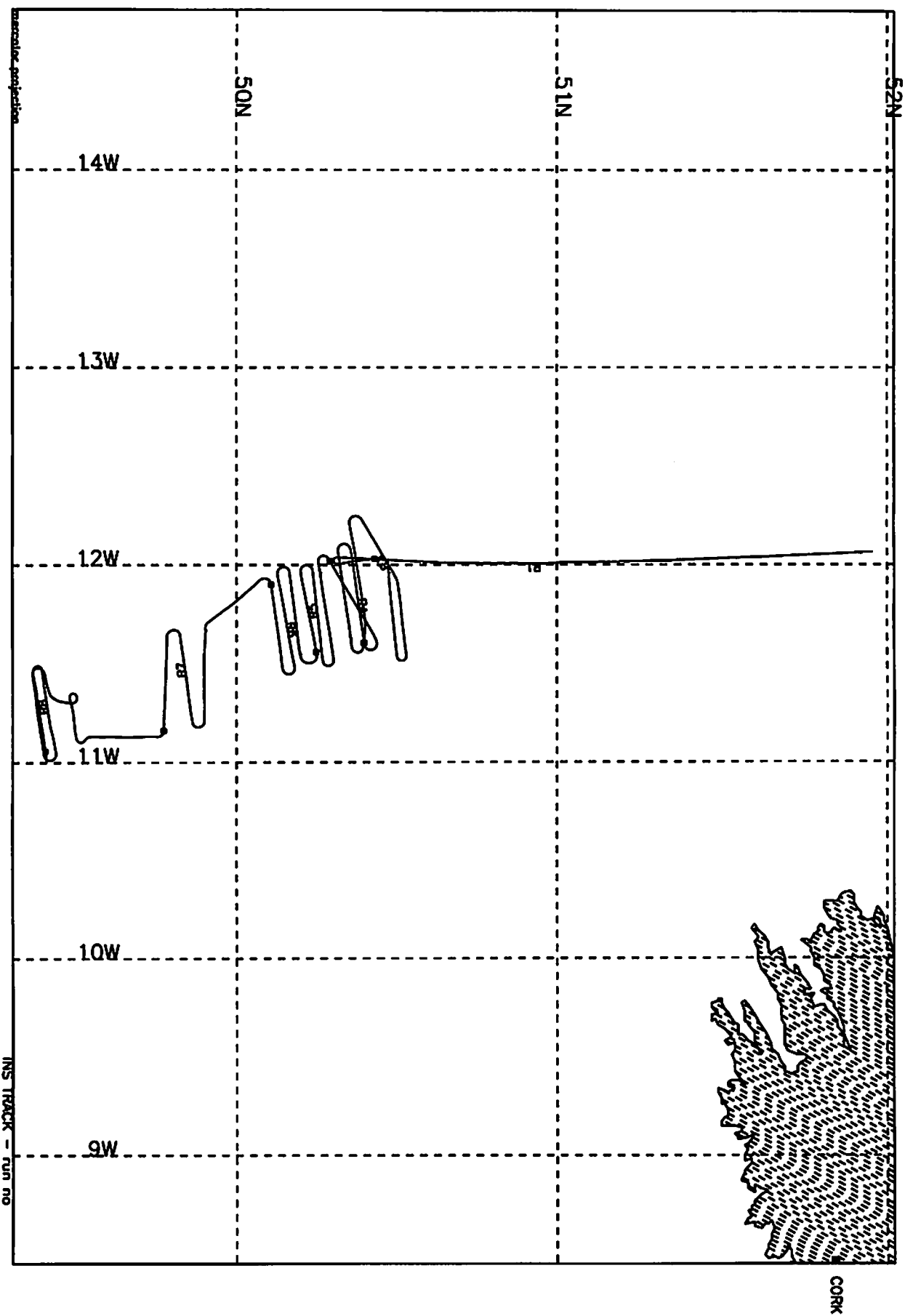
Operating area :

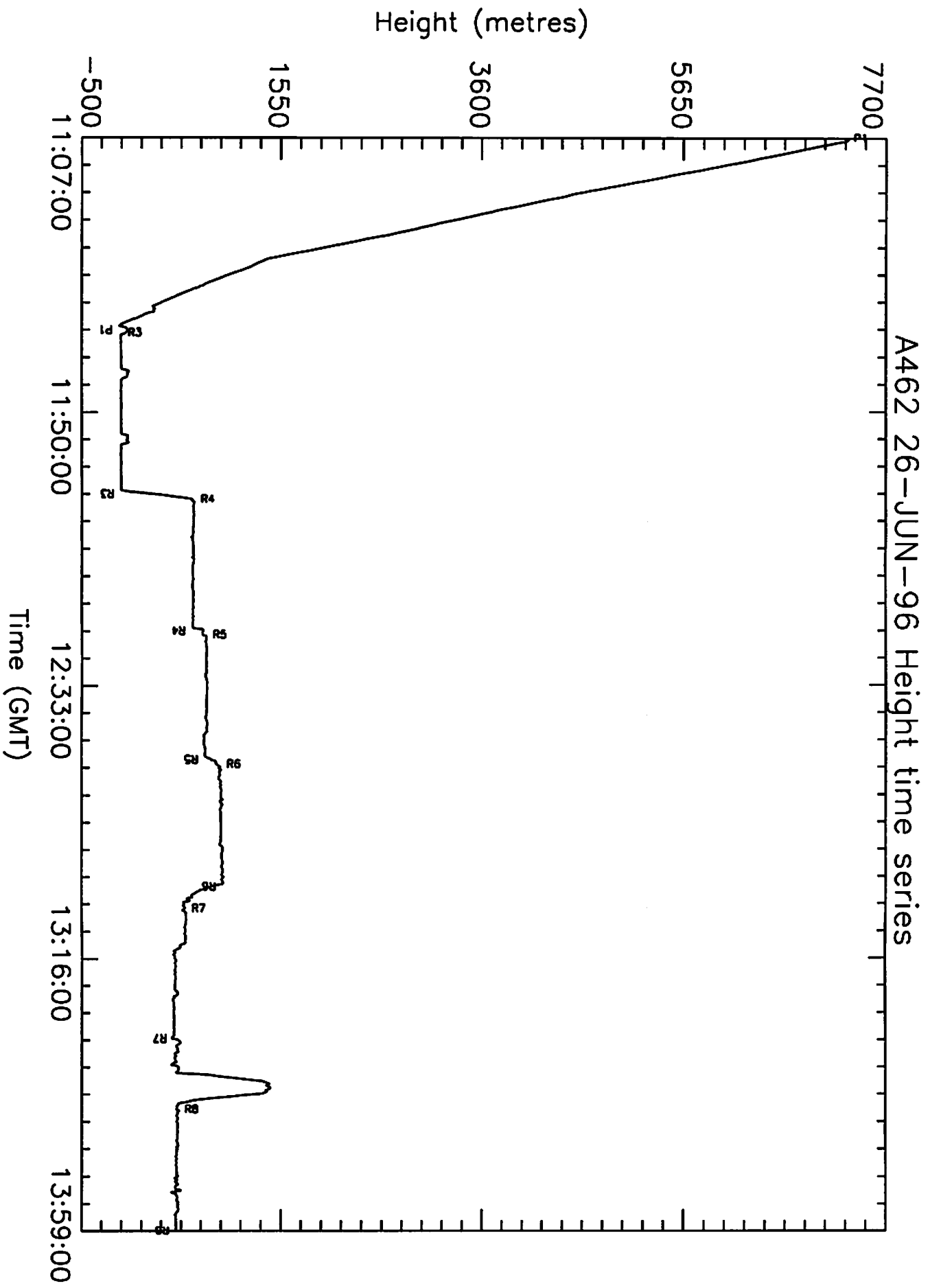
## General synoptic situation



TIME :

A462 26-JUN-96 11:07:00-13:59:00GMT





A456, 8th May 1996

<u>TIME (EM)</u>		<u>HEIGHT</u>	<u>HDG</u>
092841	Take off from Boscombe Down		
100407(13)-103831(14)	Run 1	FL240	300°
104047(15)-110516(16)	Run 2	FL240	260°
110728(17)-113630(21)	Profile P1	FL240 - 50'	190°/000°
113804(22)-114305(23)	Run 3.1	100'	090°
114502(24)-115321(25)	Run 3.2	100'	270°
115516(26)-120216(27)	Run 3.3	100'	090°
120414(28)-120917(29)	Run 4.1	2600'	270°
121135(30)-121636(31)	Run 4.2	2600'	090°
121845(32)-122346(34)	Run 4.3	2600'	250°
122530(35)-123054(36)	Run 5.1	3000'	090°
123220(37)-123737(38)	Run 5.2	3000'	270°
123859(39)-124402(40)	Run 5.3	3000'	090°
124553(41)-125044(42)	Run 6.1	3500'	270°
125207(43)-125733(44)	Run 6.2	3500'	090°
125858(45)-130401(46)	Run 6.3	3500'	270°
130837(47)-131417(49)	Run 7.1	2300'	100°
131535(50)-132053(51)	Run 7.2	1900'	270°
132223(52)-132804(53)	Run 7.3	1900'	090°
134024(55)-134524(56)	Run 8.1	2000'	090°
134456(57)-135200(58)	Run 8.2	2000'	270°
135320(59)-135820(60)	Run 8.3	2000'	090°

ENGINE FAULT - SORTIE ABORTED

155323 Land at Boscombe Down

# Sortie Brief:

## VACC - ACSOE/MAGE

Colin O'Dowd

**Objective:** To examine cloud-induced aerosol growth in the marine boundary layer during a phytoplankton plume and the evolution of DMS and Hydrocarbons in the marine boundary layer

**Location:** Up-wind and West of Mace Head, off the Irish Coast

**Meteorological Conditions:** Maritime air mass, non-broken stratocumulus cloud deck  
Tropical or mid-Atlantic air mass back trajectory

- Flight Pattern:**
- (1) Profile from transit altitude to 50 ft into initial start point - P1  
Start point is to be approximately 120-140 km upwind of ship location 53°30' N, 11° 30' W.
  - (2) Conduct k-gamma run; R1.1; R1.2
  - (3) perform stack comprising 3x5 min reciprocal VACC runs at each level. DMS and HC flask samples are highlighted when required.  
R 2.1-3 30m amsl (DMS & HC)  
R3.1-3 50m below cloud base (DMS )  
R4.1-3 30-50m above cloud base (DMS & HC)  
R5.1-3 50m above cloud top (DMS & HC)
  - (4) Transit to 40km downwind; Perform VACC run 50m below cloud base: R6.1-3 (DMS)
  - (5) Transit another 40 km downwind; perform VACC run 50m below cloud: R7.1-3 (DMS); In vicinity of ship RRS Challenger 53°30' N, 11° 30' W.
  - (6) Transit another 40 km downwind; perform VACC run 50m below cloud base: R8.1-3 (DMS & HC); and 30-50m above cloud base: R9.1-3 (DMS)
  - (7) Profile to surface and conduct full profile from 50ft to transit level home.

**Note:** VACC tubes to be used Tube 1 (ambient 30°C - this may need resetting); Tube 3 (150°C); and Tube 4 (300°C). Both DMS and HC flasks require 5 minutes fill time. If both samples are required on same VACC run these can be taken on first and third reciprocal legs.

**Ship Information:** to follow later from Wendy Broadgate

**Mace Head Sounding time** 15:00-17:00 (local time) providing no cloud present over Mace Head.

WEDNESDAY 26 JUNE 1996

FLIGHT A462 VACC

Weather: High pressure to west of Ireland. bank  
of SC. To ~~the~~ SW of Ireland.

Debrief: The Sortie was cut short due to a pitch lock  
on propellor No 2. Most of the essential science  
had be completed under a slightly broken SC  
deck. With the exception of re locating  
to the 50N 12W the sortie brief was ~~followed~~  
followed almost exactly until the IFE.

All scientific kit performed well.

Andrew Kaye

NERC AIRCRAFT SCIENTIST.

# AIRCRAFT SCIENTIST'S LOG

Aircraft Scientist: A.

Project: VACC

Flight No: A462

Date: 24/6/16

Page 1 of 6



GMT	Event Mark	Run No.	Height	Pres/Rad	INS Heading	Omega Pos'n	Other Info. (eg. clouds, weather, visibility, winds, sea state etc.)	Photo No.
						Latitude Longitude		
09:40:59	/	/	14.4	P		51.42 -2.86	in cloud	
09:45:59	/	/	17.9	P	328	51.55 -5.04	Hazy no sky visible or ground below	
09:54:09	/	/	22.0	P	293	51.79 -3.70	Sc below haze lay at current alt. <i>parnis</i>	
09:58							one peak in haze layer dropped as we climbed out.	
<del>09</del> 10:00:15	/	/	24000	P			reached cruise alt. Sc below. clear above <i>some ci ahead.</i>	
10:04:07	<del>10</del>	R1	F240	P	290	51.95 -4.78	Sc below clear above ci ahead.	
10:21:34		R1	F240	P	290		7/8 Sc below Ci above. clear below to south.	
10:26:46		R1	F240	P	287	52.46 -7.39	7/8 Sc below Steaky Ci above some breaks in ci ahead.	
10:38:40		R1	F240	P	286	52.69 -8.82	6/8 ci below ci above clear ahead to south of <i>note pit</i> <del>7/8</del>	
10:40:47		R2	F240	P	252	52.66 -9.14	6/8 <del>Sc</del> below — patchy ci above.	
10:46:31		R2	F240	P	252	52.51 -9.75	Sc sheet breaking up over coast. ci above.	
10:51:20		R2	F240	P	252	52.37 -10.30	clear below and above some cloud to south <i>over land.</i>	

# AIRCRAFT SCIENTIST'S LOG

Aircraft Scientist: A. Kunge H. Richer.

Project: <sup>VACC</sup> ~~Atoll~~ Date: 26/6/96  
Flight No: A 462 Page 2 of 6



GMT	Event Mark	Run No.	Height	Pres/Rad	INS Heading	Omega Pos'n	Other Info. (eg. clouds, weather, visibility, winds, sea state etc.)	Photo No.
						Latitude Longitude		
11:04:10	15	R2	FL 240		261	52.02 -11.78	thin ci above <del>the</del> small cum fields below.	
11:05:16	16	R2c	240	FL	261			
11:07:27	17	P1	240	FL	182	52.91 -12.06	ci above clear below with small cum fields visible.	
11:11:10							large 20,200	
11:15:50		P1	14700	FL	185		Co & aerosol peak small cum below Si above.	
11:19:29		P1	11200	FL	184	51.08 -12.00	Sc ahead broken cum below Ci ahead.	
11:23:05		P1	8200	P		50.89 -12.00	bottom of Aerosol level. air drying out on T@phi	
11:25:58		P1	5000	P	183	50.71 -12.00	Sc below some ci above.	
							3300 cloud top. 2800 cloud <del>base</del> gaps. 2700 700 feet thick	
11:33:18	19	P1 int	1200	P	183	50.32 -12.03	thin sc above.	
11:34:13	20	P1	1200	P	<del>183</del> 352	50.34 -12.01		



# AIRCRAFT SCIENTIST'S LOG

Aircraft Scientist: A. Kyrre H. Richer.

Project: VACC Date: 26/6/96  
Flight No: A462 Page 3 of 6



GMT	Event Mark	Run No.	Height	Pres/Rad	INS Heading	Omega Pos'n		Other Info. (eg. clouds, weather, visibility, winds, sea state etc.)	Photo No.
						Latitude	Longitude		
11:36:35	21	P1 end	50 ft	R	1354	50.45	-12.06	1029 sea state 2 thin SC above.	
11:38:04	22	R3.1	100 ft	R	84	50.49	-11.97	thin SC above.	
11:43:05	23	R3.1	100 ft	R	.			run at from under SC sheet. extend second run to compensate.	
11:45:02	24	3.2	100 ft	R	266	50.53	-11.61	back under SC sheet.	
11:53:20	25	3.2e	100 ft	R		50.59	-12.22	end of run moving south to clear edge.	
11:54:26	26	3.3	100 ft	R	78.	50.37	-12.14.	SC above.	
11:57:57								Flannery taking over for a while	
								Run extended 2 minutes and 17:02:16 end of run	
12:04:15	27	R4.1	200 ft	P		50.35	-11.38	SC above - JUST IN LOWEST EDGE NOT VERY THICK (SOME CLEAR PATCHES)	
12:04:17		R4.1 end	2600 ft					END CLOUD COVER 8/8ths; WATER COLOUR NOTED TO BE DIFFERENT - GREEN	
12:11:35	28	R4.2	2600 ft			50.37	-12.01	SC 7/8ths NOT THICK NO BATTERIES FOR VIDEO CAMERA - PUT	
12:16:36		R4.2 end						ON TO CHARGE IN CLOUD FOR A LITTLE WHILE	

# AIRCRAFT SCIENTIST'S LOG

Project: VACC Date: 20/6/96

Aircraft Scientist: A. KAYE H. RICHOR Flight No: A462 Page 4 of 6



GMT	Event Mark	Run No.	Height	Pres/Rad	INS Heading	Omega Pos'n	Other Info. (eg. clouds, weather, visibility, winds, sea state etc.)	Photo No.
						Latitude Longitude		
12:17:18						50.26 -11.36	<del>APPROX</del> <del>TO</del> <del>CAME</del> OUT OF CLOUD	
12:18:45	29	R4.3	2600ft			50.42 -11.66	GOING BACK UNDER THIN CLOUD SOME BREAKS 7/8ths.	
12:23:46		R4.3 END					PROFILE UP TO 2900ft INTERING CLOUD - RATHER THIN	
12:25:30	30	R5.1	3000ft			50.26 -11.96	FSSP SHOWING IN CLOUD 7μ effective radius	
12:30:54		R5.1 END				50.30 -11.48	SOME BLUE SKY NOTED BUT NOT MORE THAN 1/8th clear LOW O <sub>3</sub> 27 ppb LOW CO 7/8	
12:32:20	31	R5.2	3000ft <del>2950</del>			50.27 -11.53	CLOUD NOT BROKEN (CLOUD BURNING OFF FROM NORTH)	
12:37:37		R5.2 END				50.23 -11.97	PULLING OUT OF CLOUD ON TURN	
12:38:59	32	R5.3	3000ft			50.21 -11.9	BACK INTO CLOUD AT START OF RUN 12:40:20 OUT OF CLOUD FOR 15s	
12:44:02		R5.3 END					CO & O <sub>3</sub> still low & steady UP TO 3500 ft ABOVE CLOUD THIN CIRRUS	
12:45:43	33	R6.1	3500ft				THIN CIRRUS ABOVE, HAZE AHEAD NOTABLE CO <sub>2</sub> INCREASE 35 ppb, AEROSOL	
12:50:44		R6.1 END					TURNING	
12:52:07	34	R6.2	3500ft			50.12 -11.95	AGAIN HAZY, CIRRUS ABOVE CALM WIND (1 knot 002/1)	

# AIRCRAFT SCIENTIST'S LOG

Project: VACC Date: 26/6/96

Aircraft Scientist: AKAYE H RICHER Flight No: A462 Page 5 of 6



GMT	Event Mark	Run No.	Height	Pres/Rad	INS Heading	Omega Pos'n		Other Info. (eg. clouds, weather, visibility, winds, sea state etc.)	Photo No.
						Latitude			
						Longitude			
12:57:33		R6.2						SOME MEDIUM LEVEL CLOUD NOTED, RATHER HAZY O <sub>3</sub> CONTINUES TO BE ~ 40 ppb	
12:58:58	35	R6.3	3500ft					THIN HIGH CIRROS 1/8 HAZY	
								13:02:54 CLOUD (BASE) IS RATHER THIN	
13:04:01		R6.3 END				50.06		SOME GAPS IN CLOUD NOTED TO END OF RUN	
						-11.92		PROGRESS SOUTH EASTERLY (~20 MILES)	
13:08:37	36	R7.1	2300ft			49.91		(4) BELOW LAST WISPS OF CLOUD.	
						-11.65		WIND 375 / 1 O <sub>3</sub> BACK TO BOUNDARY	
13:11:06								LAYER LEVEL 26 ppb, CO NO CHANGE	
								HOLES IN CLOUD ABOVE BUT NOT	
13:12:40								FOR MORE THAN 20 SECONDS	
								INTO CLOUD 13:12:40 DESCENDING (1900ft)	
13:14:17		R7.1 END						A LITTLE TO GET OUT OF CLOUD	
13:15:35	37	R7.2	1900ft			<del>49.81</del>		ON VERY EDGE OF CLOUD (LOWER EDGE)	
						<del>-11.67</del>		BUT BELOW MAIN BASE HAZY	
13:20:51		R7.2 END				49.81			
						-11.67			
13:22:23	38	R7.3	1900ft			49.77		HAZY, <del>NO FSSP</del> FEW FSSP COUNTS	
						-11.62		<del>REPORTS</del> 8/8 STRATOCUMULUS ABOVE	
13:28:05		R7.3 END				49.46		REPOSITION FOR PATTERN PART (5)	
						-11.10			
13:31:03								CLEAR SKY ABOVE (HOLE IN SC)	
								WIND 339 / 6	

# AIRCRAFT SCIENTIST'S LOG

Project: VACC Date: 26/6/96

Aircraft Scientist: A KAYE H RICHOR Flight No: A462 Page 6 of 6



GMT	Event Mark	Run No.	Height	Pres/Rad	INS Heading	Omega Pos'n	Other Info. (eg. clouds, weather, visibility, winds, sea state etc.)	Photo No.
						Latitude Longitude		
	<del>8</del>	<del>8</del>					RUN AVOIDING HOLE IN CLOUD ! HOLES APPEARING IN CLOUD <sup>BEST</sup> GO SOUTH	
							PROFILE THROUGH CLOUD TO DETERMINE CLOUD THICKNESS AND BEST POSITION	
							FOR RUN 8 ITEM (5)	
13:40:24		8.1	1900ft			49.35 -11.44		
13:45:38	56	8.1e	1900			49.40 -11.03	Some big holes in Sc. <del>at</del> end of las	
13:46:57	57	8.2	2000			49.43 -11.10	heading back under cloud.	
13:52:02	58	8.2	2000		263	49.37 -11.50	hazy 7/8 Sc above. <del>Sc</del>	
13:53:19	59	8.3	2000			49.35 -11.41	Gap in cloud <u>above</u>	
13:58:23	60	8.3e	2000 P		80	49.40 -11.05	end of run out from under cloud engine #2 pitch lock... <u>problems.</u>	
							engine will need to be shut down before landing.	
							<u>end of science</u>	

# Flight Leader's In-Flight Log

Flight No A A462..... Date 26/6/96..... Page 1..... of 3.....

Video Tape	
No.	A462 #1
Ends	130
(FFC) / DFC / RFC	

	GPS	INU
Lat	5104.86	5109.56
Long	1044.65	1044.68
Time	0839	0839.
Status		

DRS recording to HORACE	(y) n
HORACE recording to disc	(y) n
SATCOM sending pos. reports	(y) n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr	Wind/ Sea st.
090900			DATA					ON	
092040			TAKE OFF				RESCUE DOWN		
100407	13	START RUN 1							
		FL240		300	200	-25.5	-34	OFF	
		END RUN 1							
103831	14	FL240		300	200	-25.5	-29.5	OFF	
		START RUN 2							
104047	15	FL240		260	200	-25.3	-30.1	OFF	
		END RUN 2							
110516	16	FL240		260	200	-24.2	-32.0	OFF	
		START PROFILE P1					1000 ft/min		
110728	17	FL240		140	150	-23.8	-28.8	OFF	
		RECONF.							
112557	18	5000'		140	140	7.7	-42.500	ft/min	
		END AT PROFILE P1							
113320	19	6000'		190				OFF	
		RECONF P1							
113418	20	12000'		000	160				

Video Tape	
No.	4462 #1
Ends	1230
<input checked="" type="checkbox"/> FFC / <input type="checkbox"/> DFC / <input type="checkbox"/> RFC	

	GPS	INU
Lat		
Long		
Time		
Status		

DRS recording to HORACE	<input checked="" type="checkbox"/> y / <input type="checkbox"/> n
HORACE recording to disc	<input checked="" type="checkbox"/> y / <input type="checkbox"/> n
SATCOM sending pos reports	<input checked="" type="checkbox"/> y / <input type="checkbox"/> n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr		Wind/ Sea st.
			END		PI					
113630	21	50'(60)	1024	0	180	13-2	6-8	OFF	Seas. 2	
			RUN		3.1					
113804	22	100'		90	180	13-2	6-5	OFF		
			END RUN		3.1					
114305	23	100'		90	180	13-2	7-2	OFF		
			START RUN		3-2					
114502	24	100'		270	180	13-1	7-3	OFF	Seas. 3	
			END RUN		3-2					
115321	25	100'		250	180	13-1	6-7	OFF		
			START RUN		3-3					
115516	26	100'		090	180	13-1	7-0	OFF		
			END RUN		3-3					
22	120216	100'		090	180	13-1	7-2	OFF		
			START RUN		4-1					
120444	28	2600'		270	180	5-4	5-4	OFF		
			END RUN		4-1					
120917	29	2650								
			START RUN		4-2					
121135	30	2600								
			END RUN		4-2					
121636	31	2600								

## Flight Leader's In-Flight Log

Flight No A 462.....

Date 26/06/96

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Video Tape	
No.	<del>4</del> 462 #1
Ends	12 <del>48</del> ?
FFC / DFC / RFC	

	GPS	INU
Lat		
Long		
Time		
Status		

**DRS** recording to HORACE (y/n)  
**HORACE** recording to disc (y/n)  
**SATCOM** sending pos. reports (y/n)

[illegible]

**DRS** recording to HORACE (y) n

**HORACE** recording to disc (y) / n

**SATCOM** sending pos reports (y) n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr	Wind/ Sea st.
				START		RUN	G-1		
124553	41	3500		270	180	8-9	-3.7	OFF	
				END			G-1		
125044	42	3500							
				START		RUN	G-2		
125207	43	3500		090	180	9-3	-5.8	OFF	
				END		RUN	G-2		
125733	44	3500		090	185	9-3	-5.2	OFF	
				START		RUN	G-3		
125838	45	3500		270	180			OFF	
				END		RUN	G-3		
130400	46	3500		270	185				
				START		RUN	7-1		
130837	47	2300		100	190	7-0	5-9	OFF	
				END		RUN	7-1		
131417	48	2200							
				START		RUN	7-2		
131535	50	1900		270	185	8-1	7-2	OFF	
				END		RUN			
132033	51	1400		270	185	8-1	6-8	OFF	



# Flight Leader's In-Flight Log

Flight No A A462

Date 26/6/96

Page 3 of 3

Video Tape	
No. <u>A462#2</u>	Ends <u>1545</u>
FFC / DFC / RFC	

	GPS	INU
Lat		
Long		
Time		
Status		

DRS recording to HORACE	(y) n
HORACE recording to disc	(y) n
SATCOM sending pos. reports	y / n

GMT	EVM	Height	QNH	Hdg	IAS	TAT	DP	DI Htr		Wind/ Sea st.
				START		RUN	7.2			
13223	52	1400		090	185	8.2	6.4	OFF		
				END		RUN	7.3			
132804	53	1400		090	180	8.2	6.4	OFF		
				START		RUN	8.1			
134024	55	2400		090	185	7.6	6.3	OFF		
				END		RUN	8.1			
134524	56	2000		090	185	7.4	6.1	OFF		
				START		RUN	8.2			
134656	57	2000		270	180	7.6	6.0	OFF		
				END		RUN	8.2			
135200	58	2000		270	180	7.6	6.1	OFF		
				START		RUN	8.3			
135320	59	2000		090	180	7.7	6.1	OFF		
				END		RUN	8.3	OFF		
135820	60	2000		090	180	7.4	6.7	OFF		
				NO 2 ENGINE FAULT						
				RETURN TO B.O.						
155323				LAND B.O.						

**DRS** recording to HORACE y/n

**HORACE** recording to disc y/n

**SATCOM** sending pos reports y/n

Met Research Flight

## SAFIRE OPERATOR'S LOG

Flight Number: A462 Operators name: Jim / Ian Date: 26/6/96 Page 1 of   

Time (GMT)	Event mark	Run no.	Height	Filter posn.	Mirror posn.	Shutter status up low	Hor link (tick)	Temp diff Ref-BB	Sol Zen	Comments
083000										AUTO CAL PROGRAM (COLD TARGET / EX TARGET 60°)
										STARTED
084000										END CAL
0950				0	HRS	S S	✓			
095440			FL220	F013	ZEN	S S			39	CLEAR ABOVE
0957								✓		CUMULUS TO FL240
100200			FL240	F013	ZEN	S S		✓		CLEAR ABOVE
100345			FL240	F0	ZEN	S S			39	CLEAR ABOVE RUN 1 STARTED
100800			FL240	F1	ZEN	S S			39	CLEAR ABOVE
101014			FL240	F2	ZEN	S S				CLEAR
101317			FL240	F3	ZEN	S S				CLEAR
101443										CLOUD ABOVE
101610			FL240	F013	CADDS	S S				INTERNAL CAL - CLOUD ABOVE
102140			FL240	F013	HOTDS	S S				INTERNAL CAL / UNDER CIRRUS
102225			FL240	F0	ZEN	0 S				<del>CLEAR ABOVE</del> LW CAL?
103321			FL240	F1	ZEN	0 S				THIN C.
103411			FL240	F2	ZEN	0 S				"
103505			FL240	F3	ZEN	0 S				"
103840			FL240	F013	CADDS					UNDER CIRRUS
104550			FL240	F013	HOTDS	S S				CIRRUS ABOVE
105230			FL240	F0	ZEN	0 S			30	CLEAR ABOVE & BELOW

SW CAL



A462

## CCNC Log

GMT	ALLEV.		Height	Dyn	STATIC							Remarks
	On	Off			1	2	3	4	5	6	7	
					1.75	2.5	3.5	4.25	5.5			PRE FLIGHT
<del>082010</del>	<del>082010</del>		0		0.11							S
082010	082210				0							D ADJUST
					0							B BASELINE
					2362							R
					972.6							P
												PRE FLIGHT
			0		0.11	0.24	0.47	0.71	1.20			S
SAME					206	240	276	297	498			D SAME
SAMPLE					256	239	244	236	240			B SAMPLE
					2393	2400	2429	2426	2450			R
					972.5	972.7	972.7	972.7	972.8			P
					1.75	2.5	3.5	4.25	5.5			PRE FLIGHT
083830	084030		0		0.11	0.23	0.47	0.69	1.17			S
					227	255	241	293	376			D
					235	235	226	222	219			B
					2458	2455	2451	2444	2454			R
					972.6	972.6	972.9	972.9	973.0			P
095550	095750		22000		0.10	0.21	0.43	0.64	1.09			S
			-24000		191	187	186	203	214			D
					192	191	190	185	186			B
					2509	2505	2502	2502	260			R
					863.9	802.4	809.0	815.4	820.7			P
					1.75	2.5	3.5	4.25	5.5			RUN 1
103410	103620		24000		0.11	0.23	0.45	0.66	1.14			S
					219	216	245	204	268			D
					235	234	232	211	207			B
					2476	2487	2487	2485	2485			R
					841.9	841.5	841.6	841.6	841.7			P
												RUN 3.1
113815	114015		100		0.10	0.22	0.43	0.65	1.09			S
					209	206	205	204	248			D
					230	216	225	223	220			B
					2500	2499	2493	2495	2498			R
					1004.9	1005.6	1003.7	1005.4	1005.3			P

A462

## CCNC Log

[illegible]

# OZONE ANALYZER LOG

Project: NERC (MACEHEAD) Date: 26/6/96

User: Jess Leve

Flight No: A462

Page | Of

$SPAN = SOL$        $OFFSET = S\emptyset$

[illegible]

## Page 1 of 4

[illegible]



# CLOUD PHYSICS LOG

Flight No. A262

Date: 26/6/96

Operator: mp

Page 2 of 4

G.M.T.	PCASP		FSSP			2D-C			HVPS / 2D-P			REMARKS
DRS Time	Conc/cc	Mean R	Conc/cc	Max Size	Reff	Conc/L	Max Size	Habit	Conc/m <sup>3</sup>	Max Size	Habit	
112350	46	0.09										FL60
112441	215	0.11										FL50
112604	150	0.12										FL5000'
112803	180	0.11										4000'
11294	110	0.3	132	30	5.7	6	50	12				3000'
113141	170	0.10	0.4	10								2000'
113431	170	0.10	0.5	5								1000'
113535	170	0.10	0.2	5								500'
113633	170	0.11	0.1	5								50' end of P
113804												Start Run 3.1 @ 100'
113900	160	0.10										
114100	150	0.10	0.3	5								
114303												end of Run
114502												Start Run 3.2 @ 100'
114600	206	0.10	0.5	5								
114800	170	0.10	0.2	5								
115000	150	0.10	0.1	5								
115200	160	0.10										
115400												end of Run
115516												Start Run 3.3 @ 100'
115600	150	0.10	0.3	5								
115800	150	0.10	0.3	5								
120000	140	0.10	0.2	5								
120214												end of Run
120415												Start Run 4.1 @ 2600'
120500	140	0.11	0.77	5								
120700	140	0.11	0.75	5								
120900	140	0.11	0.8	5								
120916												end of Run
121134												Start Run 4.2 @ 2600'
121200	140	0.11	0.7	5								
121400	140	0.11	1	10								
121634												end of Run
121843												Start Run 4.3 @ 2600'
121900	150	0.11	45	30	5							
122100	160	0.11	0.7	5								

# CLOUD PHYSICS LOG

Flight No. A 462

Date: 26 6/96

Operator: *net*

Page 3 of 4

G.M.T.		PCASP		FSSP			2D-C			HVPS / 2D-P			REMARKS
DRS Time	Conc/cc	Mean R	Conc/cc	Max Size	RclT	Conc/L	Max Size	Habit	Conc/m <sup>3</sup>	Max Size	Habit		
122000	140	0.11	0.7	5								end of Run Start Run 5.1 @ 2950'	
122348													
122529													
122600	240	0.37	150	25	7.0	3	50	12					
122800	140	0.35	150	30	6.0	3	25	12					
123000	250	0.44	190	30	7.1	8	50	12					
123008												end of Run Start Run 5.2 @ 2950'	
123229	<del>150</del>												
123300	140	0.38	140	30	5.9	3	50	12					
123500	90	0.35	140	30	5.5	2	50	12					
123700	170	0.45	180	25	7.1	2	50	12					
123837													
123900	125	0.36	150	35	7.2	4	50	12				end of Run Start Run 5.3 @ 2950'	
124100	90	0.26	145	30	5	8	50	12					
124300	215	0.36	180	35	6.5	0.5	25	12					
124408	215	0.4										end of Run Start Run 6.1 @ 3500'	
124553													
124600	80	0.10											
124800	100	0.10											
125043													
125212													
125300	90	0.10										end of Run Start Run 6.2 @ 3500'	
125500	130	0.11											
125700	110	0.11											
125931												end of Run Start Run 6.3 @ 3500	
125859													
125900	100	0.10											
130100	100	0.11											
130300	115	0.10											
130400													
130837												end of Run Start Run 7.1 @ 2950'	
130900	140	0.11	0.7	10									
131100	137	0.12	0.7	10									
131305	160	0.12											
131416													
131536													
												end of Run Start Run 7.2 @ 1900'	

# CLOUD PHYSICS LOG

Flight No. A 462

Date: 2/6/96

Operator: *nt*

Page 4 of 4

[illegible]

DATE 26 JUN 96 TI MRF 01NAV S/L AMERSAIRFIELD Boscombe DownAIRFIELD                     R/W 23 W/V 300/05 TEMP 47 QNH 1022 QFE 1008R/W 23 W/V 320/07 TEMP            QNH 1022 QFE 1008WX No SICWX           ATC CL WEST 1220 SA 3322 STUO 4ATC CL           T/O TIME 0929LAND TIME 1554

TIME	HDG	DR	G/S	IAS	TAS	W/V	ALT/FL	QNH/PR	LAT/LONG	RUN
1004 <sup>07</sup>	290	3 1/2 P	266	196	289	324/30	F240	1024	N 5155.7 W 00444.1	R1
1038 <sup>21</sup>							F240		N 5240.7 W 00846.5	ER1
1040 <sup>47</sup>	253	4P	274	199	291	287/30	F240	✓	N 5240.8 W 00902.6	R2
1105 <sup>16</sup>							F240		N 5200.5 W 01153.8	ER2
1107 <sup>28</sup>	185	5P	274	180	267	280/31	F240	✓	N 5155.2 W 01203.7	P1
1133 <sup>20</sup>										IP1
1134 <sup>13</sup>									N 5019.4 W 01200.2	RP1
1136 <sup>30</sup>								1029	N 5026.0 W 01201.7	EP1
1138 <sup>04</sup>	085	3S	180	176	175	094/06	100'	✓	N 5028.6 W 01157.9	SR3.1
1143 <sup>05</sup>							✓	✓	N 5030.0 W 01133.9	ER3.1
1145 <sup>02</sup>	267	3P	181	181	180	352/10	100'		N 5031.6 W 01135.3	SR3.2
1153 <sup>21</sup>							✓		N 5023.9 W 01212.6	ER3.2
1155 <sup>16</sup>	078	3S	189	188	186	354/03	100		N 5021.6 W 01209.5	SR3.3
1202 <sup>16</sup>							✓		N 5024.0 W 01136.5	ER3.3
1204 <sup>14</sup>	267	3P	188	180	186	351/11	2600	✓	N 5021.5 W 01137.9	SR4.1
1209 <sup>17</sup>									N 5019.3 W 01202.4	ER4.1
1211 <sup>35</sup>	081	2S	186	178	182	343/8	✓	✓	N 5021.9 W 01201.4	SR4.2
1216 <sup>36</sup>									N 5023.9 W 01137.3	ER4.2
1218 <sup>45</sup>	245	3P	193	183	189	345/12	✓	✓	N 5025.6 W 01139.3	SR4.3
1223 <sup>45</sup>							✓		N 5017.7 W 01201.0	ER4.3
1225 <sup>30</sup>	082	4S	186	178	182	018/09	3000	✓	N 5015.8 W 01158.2	SR5.1
1230 <sup>54</sup>									N 5018.3 W 01132.4	ER5.1
1232 <sup>20</sup>	266	3P	186	182	187	359/12	✓	✓	N 5016.3 W 01132.2	SR5.2

1232<sup>20</sup>

SR5.2

TIME	HDG	DR	G/S	IAS	TAS	W/V	ALT/FL	QNH/PR	LAT / LONG	RUN
1237 <sup>37</sup>							3000	1029	N 5014.5 W 01157.8	SR5.2
1238 <sup>59</sup>	080	2LS	186	184	191	026/08	/	/	N 5012.3 W 01157.6	SR5.3
1244 <sup>02</sup>							/	/	N 5015.1 W 01133.8	SR5.3
1245 <sup>43</sup>	264	2LP	189	181	189	358/10	3500	/	N 5012.0 W 01133.3	SR6.1
1250 <sup>44</sup>							/	/	N 5010.2 W 01157.2	SR6.1
1252 <sup>07</sup>	079	2S	196	181	190	094/01	/	/	N 5007.9 W 01156.5	SR6.2
1257 <sup>33</sup>							/	/	N 5011.0 W 01129.6	SR6.2
1258 <sup>58</sup>	264	2LP	188	178	186	321/04	/	/	N 5008.7 W 01129.3	SR6.3
1304 <sup>01</sup>								/	N 5006.6 W 01153.7	SR6.3
1308 <sup>37</sup>	091	3S	193	185	190	327/02	2300	/	N 4954.1 W 01140.3	SR7.1
1314 <sup>17</sup>								/	N 4953.8 W 01112.9	SR7.1
1315 <sup>35</sup>	264	2LP	183	180	182	326/05	1900	/	N 4951.4 W 01113.0	SR7.2
1320 <sup>53</sup>								/	N 4949.1 W 01138.2	SR7.2
1322 <sup>23</sup>	090	2LS	189	184	186	348/05	1900	/	N 4946.8 W 01137.5	SR7.3
1328 <sup>04</sup>								/	N 4945.9 W 01109.9	SR7.3
1340 <sup>24</sup>	081	3LS	185	184	187	011/08	2000	/	N 4920.7 W 01126.1	SR8.1
1345 <sup>24</sup>							/	/	N 4922.9 W 01102.9	SR8.1
1346 <sup>56</sup>	265	41	186	182	184	000/09	/	/	N 4925.2 W 01104.1	SR8.2
1352 <sup>00</sup>							/	/	N 4922.5 W 01128.1	SR8.2
1353 <sup>20</sup>	076	3LS	176	175	178	005/14	/	/	N 4920.9 W 01126.4	SR8.3
1358 <sup>20</sup>									N 4923.2 W 01103.8	SR8.3
NO2 ENGINE / PROPELLER PITCH LOCKED										

Diversion : 1000  
 Min Overhead : 5700  
 Contingency : 1635  
 Extra Fuel : 0  
 Regd Start Fuel: 42037

Actual Reserve : 16298  
 Hold Fuel Flow : 4500  
 Rsv Endurance : 3.37  
 Flt Plan Time : 6.38  
 Total Endurance: 10.15

ZFW : 38000  
 Ramp Fuel : 50000  
 Ramp Weight : 146000  
 Take Off Weight: 145000  
 Landing Weight : 112298

(c) RJCV 1991

# WAYPOINTS

## OBSERVATIONS

EGDM	00407'	N5109.5	W00144.3	1
WESTPT		N5110.0	W00210.0	2
BRI	380.00	N5122.8	W00243.0	
BCN	117.45	N5143.5	W00315.7	3
AMMAN		N5150.4	W00359.8	
STU	113.10	N5159.7	W00502.3	4
SLANY		N5209.5	W00550.6	
CML	387.00	N5227.2	W00728.8	
SHA	113.30	N5243.5	W00853.2	5
DOLIP		N5200.0	W01200.0	6
GIPER		N5100.0	W01200.0	7
KENUK		N5000.0	W01200.0	8
50N11W		N5000.0	W01100.0	9
50N10W		N5000.0	W01000.0	10
50N09W		N5000.0	W00900.0	11
GAPLI		N5000.0	W00800.0	12
LND	114.20	N5008.1	W00538.2	13
EX	337.00	N5045.1	W00317.6	14
EGDM	00407'	N5109.5	W00144.3	1
EGDL	00513'	N5130.6	W00159.4	0

# VACC in-flight log

Flight No: A462 Date: 26/06/96.

Operator: O'SBORNE / M. RILEY

Project: O'DUNN / MAGE/ACSOE . Tube Temperature settings: A= 30°C B= 80°C C= 150°C D= 300°C PAGE 1/5

GMT	Laser volts	Tube	Run	VACC event	Height	Comments (e.g. comparisons with PCASP, aerosol sources/observations, pollution, problems with RDAS timeouts)
~0930						T/O from BUSCOMB DOWN.
<del>0930</del>						<del>RDAS TIMING PROBLEM ON BOOT-UP.</del>
						COMMS PROBLEM - TYPE "C" MODE COM1: 96n, 81"
~0945	7.5	1	T	ALP40	FL190	SOFTWARE UP + RUNNING - "A462-2.DAS"
094732		1				DATA VALID.
094820		1				RDAS TIMED-OUT BRIEFLY - OK (?)
0954		1			FL220	Increased counts - haze layer.
095630		2			Rising	Tube 2 counts / counts dropped off. (coming out haze layer?)
100130	6.0	3			FL240	Tube 3. Very low counts. INVALID FOR 2300hrs
100415						Run 1 start - STABLE RUNS. Ignore?
100700	6.5	4	1	-	FL240	Tube 4. Counts virtually zero now. PCASP also
101228	7.0	1	1	-	FL240	Tube 1. One or two counts. A little higher than H <sub>2</sub> O plate counting in 2 second intervals (not 1) now
~1036						Had been in "ascent" for unknown period up to this time.
1056						
110730	7.5	1	PIV	-	FL240	Rapid Descent. Tube 1

VACC in-flight log

Flight No: 1462

Date: 26 / 06 / 96

Operator: O'Brien / m. P. R.

Project: O'Donoghue

Tube Temperature settings: A = 38°C B = 80°C C = 150°C D = 300°C

PAGE 2 / 5

GMT	Laser volts	Tube	Run	VACC event	Height	Comments (e.g. comparisons with PCASP, aerosol sources/observations, pollution, problems with RDAS timeouts)
7114		1	P1 ↓		FL160	haze layer? + rising.
7118	9.0V-	1	P1 ↓		FL30	Start below haze layer.
1120		1	P1		FL100	High laser. PCASP ~ 1000/cc.
1123	9.5V	1	P1		480'	Counts dropping off.
112900		1	P1		3,300'	Start climb.
113072	9.1	1	P1		2,600'	Just back of S-Cu. PCASP ~ 180/cc.
113320			P1 →		1000'	Intercept Profile.
113412	9.1	1	P1 ↓		1000'	Re-start profile descent.
113630	9.1	1	P1		50'	End profile.
113802	9.1	1	3.1	#1	100'	Start Run.
114309	9.1	1	3.1	#2	100'	End Run + change TUBE #3
114502	9	3	3.2	#3	100'	Start Run TUBE 3
115320	9	3	3.2	#4	100'	End Run change TUBE #4
115522	9	4	3.3	#6	1100'	Start Run TUBE 4 some particles seen?
120210		4	3.3	#7	100'	End Run → Ascend (in bell)



**VACC in-flight log**

Flight No: 4462

Date: 26/6/96

Operator: OSBURN / M. FULFORD

Project: O'Donnell

Tube Temperature settings: A = 30°C B = 80°C C = 150°C D = 300°C

PAGE 3/5

GMT	Laser volts	Tube	Run	VACC event	Height	Comments (e.g. comparisons with PCASP, aerosol sources/observations, pollution, problems with RDAS timeouts)
120414	9.2	1	4.1	8	2600'	Start Run @ correct height level. Below cloud base
120916	9.1	1	4.1	9	2600'	End Run. → Tube 3 change.
121140	9	3	4.2	10	2600'	Start Run. PCASP ~ 130/cc
121634	9	3	4.2	11	2600'	End Run. → change to Tube 4.
121846	9	4	4.3	12	2600'	Start Run. Some haze - FSSP (?)
122343	9	4	4.3	13	2600'	End Run. → change to Tube 1
122530	9	1	5.1	14	3000'	(Rise into cloud.) Start Run in haze
123100	9	1	5.1	15	3000	End Run, select Tube 3
123218	9	3	5.2	16	3000	Start Run,
123738	9	3	5.2	17	3000	End Run, select Tube 4.
123857	9	4	5.3	18	3000ft	Start Run,
124030		4				Going through hole in the cloud
124400	9	4	5.3	19	3000ft	End Run, select Tube 1 climb out of cloud
124557	9	1	6.1	20	3500ft	Start Run above cloud PCASP ~ 100
125042	9	1	6.1	21	3500ft	End Run, select Tube 3

**VACC in-flight log****Flight No:** A462 **Date:** 28 / 6 / 96**Operator:** OSOBE/NE/M. KILG**Project:** OZOND**Tube Temperature settings:** A= 30°C B= 80°C C= 150°C D= 300°C **PAGE** 415

GMT	Laser volts	Tube	Run	VACC event	Height	Comments (e.g. comparisons with PCASP, aerosol sources/observations, pollution, problems with RDAS timeouts)
125204	9	3	6.2	22	3500ft	Start Run PCASP ≈ 100 /cc
125734	9	3	6.2	23	3900ft	End Run, select Tube 4
125856	9	4	6.3	24	3520ft	Start Run, PCASP ≈ 90 /cc
130400	9	4	6.3	25	3500ft	End Run, select Tube 1, descend + head downwind
130836	9	1	7.1	26	2300ft	Start Run, under cloud PCASP ≈ 140 /cc
131320	9	1	7.1	27	2000ft	End Run, select Tube 3 - 131333 descend a little & stay under cloud.
131532	9	3	7.2	28	1900ft	Start Run PCASP ≈ 130 /cc
132050	9	3	7.2	29	1900'	End Run, change → Tube #4
132222	9	4	7.3	30	1900'	Start Run
132802	9	4	7.3	31	1700'	End Run, change → Tube #1, Transit
134023	9	1	8.1	32	2000ft	Start Run, below cloud base
134526	9	1	8.1	33	2000ft	End Run, select Tube 3 PCASP ≈ 140 /cc
134654	9	3	8.2	34	2000ft	Start Run PCASP ≈ 150
135203	9	3	8.2	35	2000ft	End Run, select Tube 4
135320	9	4	8.3	36	2000ft	Start Run PCASP ≈ 140 /cc

## VACC in-flight log

**Flight No:** A402 **Date:** 28 / 6 / 96

**Operator:** USRVNT/M. Luni

**Project:** C'Demo

**Tube Temperature settings:** A= 38°C B= 40°C C= 150°C D= 300°C **PAGE 5 / 5**

[illegible]

**FLIGHT LEADER'S INSTRUMENT STATUS REPORT**  
=====

FLIGHT NO: *A462*

DATE: *26 / 6 / 96*

MRF

INSTRUMENT	FITTED		OPERATED		COMMENTS
	YES	NO	YES	NO	
NAVIGATION:					
GPS	<i>/</i>				
OMEGA	<i>/</i>				
INU	<i>/</i>				
RADALT	<i>/</i>				
THERMOMETERS:					
DI TEMP	<i>/</i>				
NDI TEMP	<i>/</i>				
ICTP	<i>/</i>				
BARNES PRT4	<i>HEIKMAN</i>				
HYGROMETERS:					
GEN. EASTERN	<i>/</i>				
TWC	<i>/</i>				
FWVS	<i>/</i>		<i>/</i>		
J/W	<i>/</i>				
EXP. PITOT HEAD:					
STATIC PRESS.	<i>/</i>				
PITOT PRESS.	<i>/</i>				
GUST VANES	<i>/</i>				
RADIOMETERS:					
UPPER CLEAR	<i>/</i>				
UPPER RED	<i>/</i>				
UPPER SILICON	<i>/</i>				
LOWER CLEAR	<i>/</i>				
LOWER RED	<i>/</i>				
LOWER SILICON	<i>/</i>				
MARSS		<i>/</i>			
MCR/SAFIRE	<i>/</i>				
DEIMOS					
CHEMISTRY:					
OZONE	<i>/</i>				
ECGC		<i>/</i>			
NOX		<i>/</i>			
OTHERS:					
CCN	<i>/</i>				
CLOUD PHYSICS	<i>/</i>				
CABIN PRESS	<i>/</i>				
NEPHELOMETER	<i>/</i>				
HOLOGRAPHY		<i>/</i>			

P.T.O. FAULTS/ INCIDENTS

E.R. MONITOR PRODUCED SYNC FAULT  
ON PRINTER WHEN PRINTING.

No. 2 Engine prop pitch locked  
sortie aborted.

# VIDEO TAPE LOG

Flight No **A** A462 #1

Date ..... 26/6/96 .....

Tape No ..... User A KANE/NERC Retention Period 10 YEARS.....

GMT	Tape Counter	Camera Position	Remarks
094500		FFC	TAPE STARTS
124500		"	TAPE ENDS

## VIDEO TAPE LOG

Flight No **A** 462#2.....

Date 26/6/06

Tape No ..... User A KAYE/NERC Retention Period 10 YEARS.....

[illegible]

**INSTRUMENT STATUS AND REQUIREMENT FORM**  
A462 26JUN96 MRF

STANDARD INSTRUMENTS				NAVIGATION/AIRCRAFT PERFORMANCE			
EXP PIT STAT HEAD				INS	On	Ess	
Pitot-static	On	Ess		GPS	On	Ess	
Wind Vanes	On	Ess		Mag compass	On	Ess	
THERMOMETERS				Omega	On	Ess	
ICTP	X			radar Alt	On	Ess	
De-iced	On			CLOUD PHYSICS			
Non De-iced	On	Ess		PCASP	On	Des	
HYGROMETERS				2D CLOUD	On	Des	
Gen East (1011)	On	Ess		FSSP	X	Des	**
Fluor W V S	On	Des		HVPS	On		
AEROSOL SAMPLING				JW	On	Des	
Filters	X			Tot Water	On	Des	
CN Counter	X			DROPSONDE SYSTEM			
VACC	On	Ess		Sondes	On		
PSAP	On	Des		Receivers	On		
CVI	X			RADIOMETERS			
Alleviator	On	Des		Deimos	On		
CCN	On	Des		Heimann	On	Ess	
Nephelometer	On	Des		BROAD BAND LOWER			
CHEMICAL				Standard Fit	On	Ess	
TECO Ozone	On			Non standard	X		
Bendix Ozone (eth)	X			BROAD BAND UPPER			
ECGC's	X			Standard fit	X	Ess****	
UEA Peroxide	X			Non standard	X		
KFA	On			Obscurers (L)	X		
IMAGERY				Obscurers (S)	X	Ess****	
Weather Radar	On	Ess		NARROW BAND			
Video Cameras	On	Des		Marss	X		
Video Rec	On	Des		MCR/SAFIRE	X	Des	**
Photo Cameras	On	Des					
Hand Held Video	On	Des					
DATA RECORDING							
Video printer	On	Des					
Horace	On	Ess					
DRS	On	Ess					

R : Remove, C : Cover  
T/O TIME - 10:30 local

A462

26-JUN-96

09:58:21

012 Ω

51.84

-4.12 AS P

HDG	SPR	PHGT	TAS	TAT	DEW	WIND
deg T	mb	kft	knots	C	C	deg m/s
288.	398.	23.7	237.	-25.2	-47.8	332/12

OZONE MR  
ppb

58.36

125.00

100.00

75.00

50.00

25.00

0.00

125.00

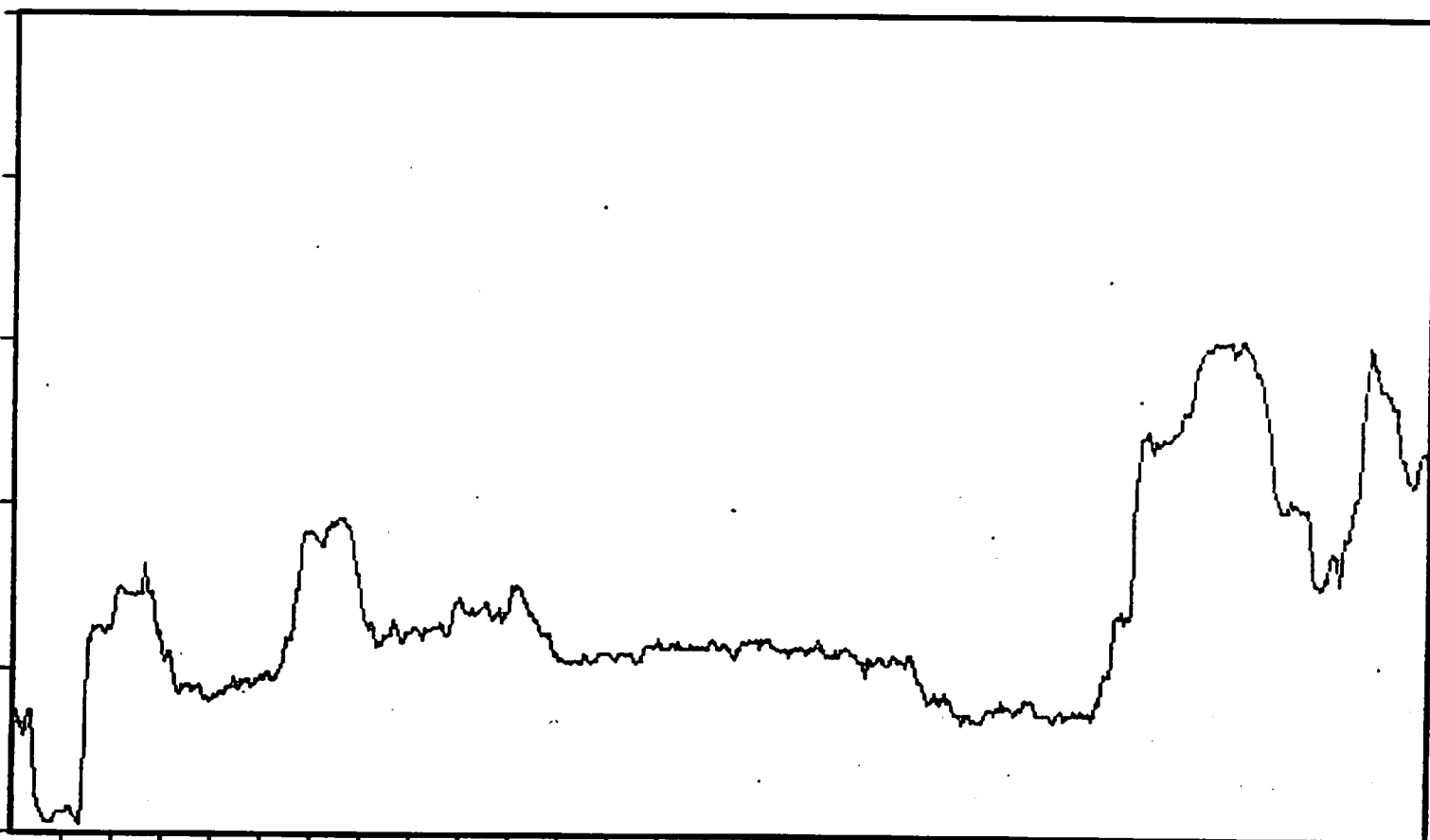
100.00

75.00

50.00

25.00

0.00



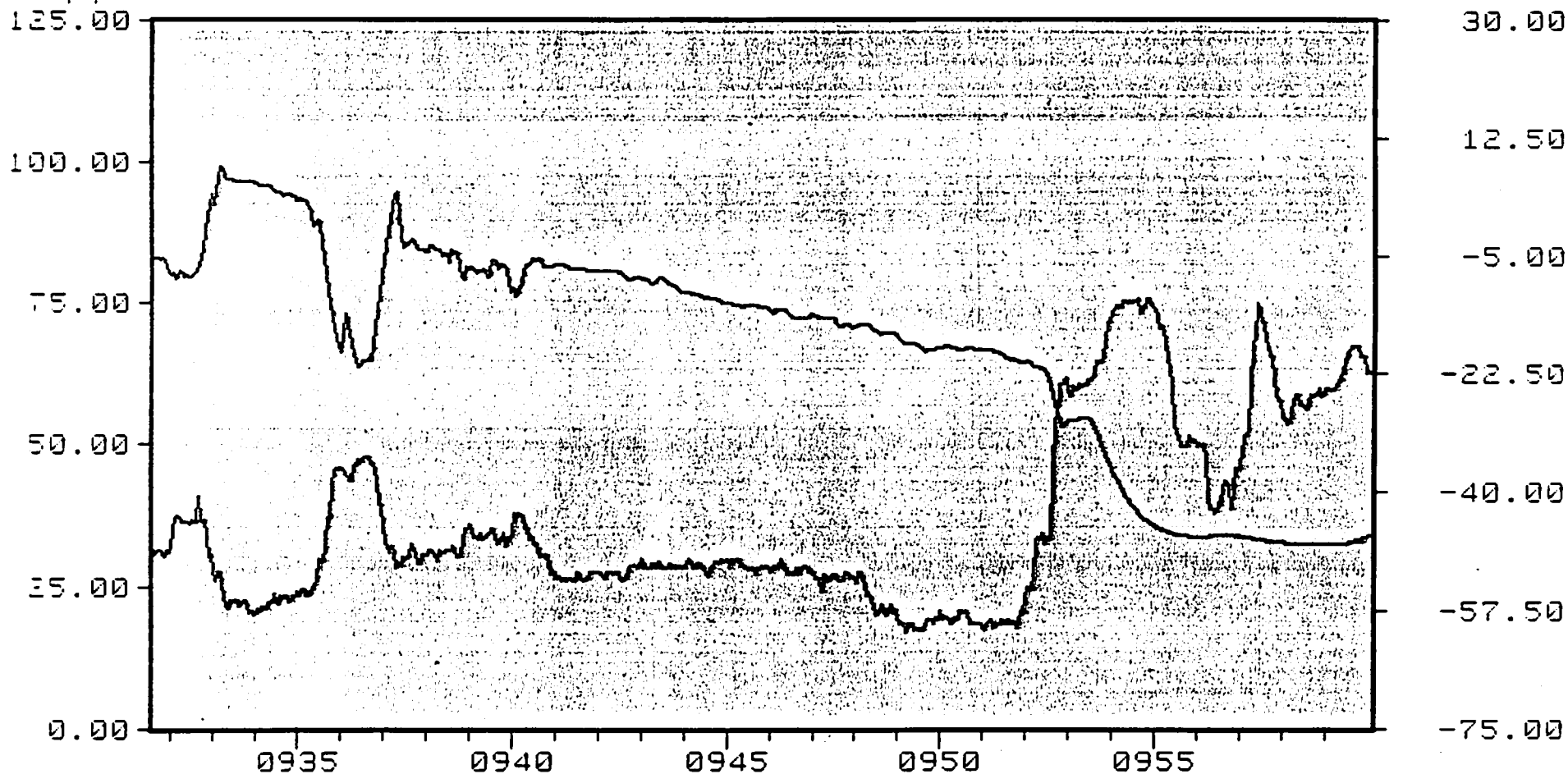
A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP



A462 26-JUN-96 09:59:57 012  $\Omega$  51.87 -4.28 RV P

HDG	SPR	PHGT	TAS	TAT	DEW	WIND
deg T	mb	kft	knots	C	C	deg m/s
288.	392.	24.0	249.	-25.7	-46.5	326/13

OZONE MR 62.27 GE DEWP -46.54  
ppb C



A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

A462 26-JUN-96 10:02:57 012 51.92 -4.61 RV

HDG	SPR	PRGT	TAS	TAT	DEW	WIND
degT	mb	kft	knots	C	C	deg m/s
290.	392.	24.1	284.	-25.4	-40.2	324/15

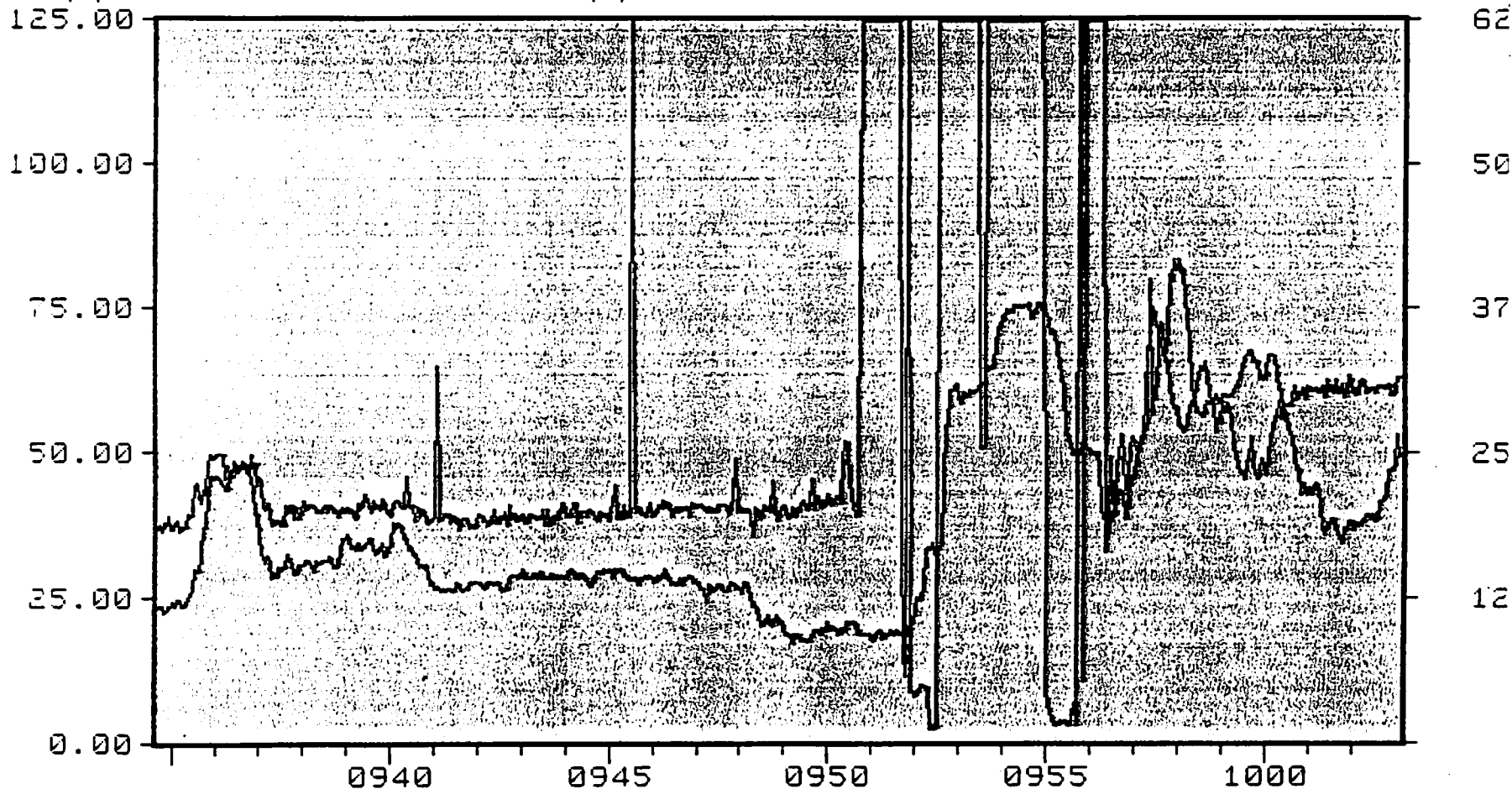
OZONE MR

49.57

CO MR

314.00

ppb  
125.00



A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM			VIDEO	HELP

A462 26-JUN-96 11:25:03 017 0 50.78 -12.00 RV P

HDC	SPR	FWGT	TAS	TAT	DEW	WIND
deg F	mb	kft	knots	C	C	deg m/s
182.	824.	5.6	198.	9.6	-26.3	289/4

OZONE MR

58.85

CO MR

227.00

ppb

ppb

125.00

1250.00

100.00

1000.00

75.00

750.00

50.00

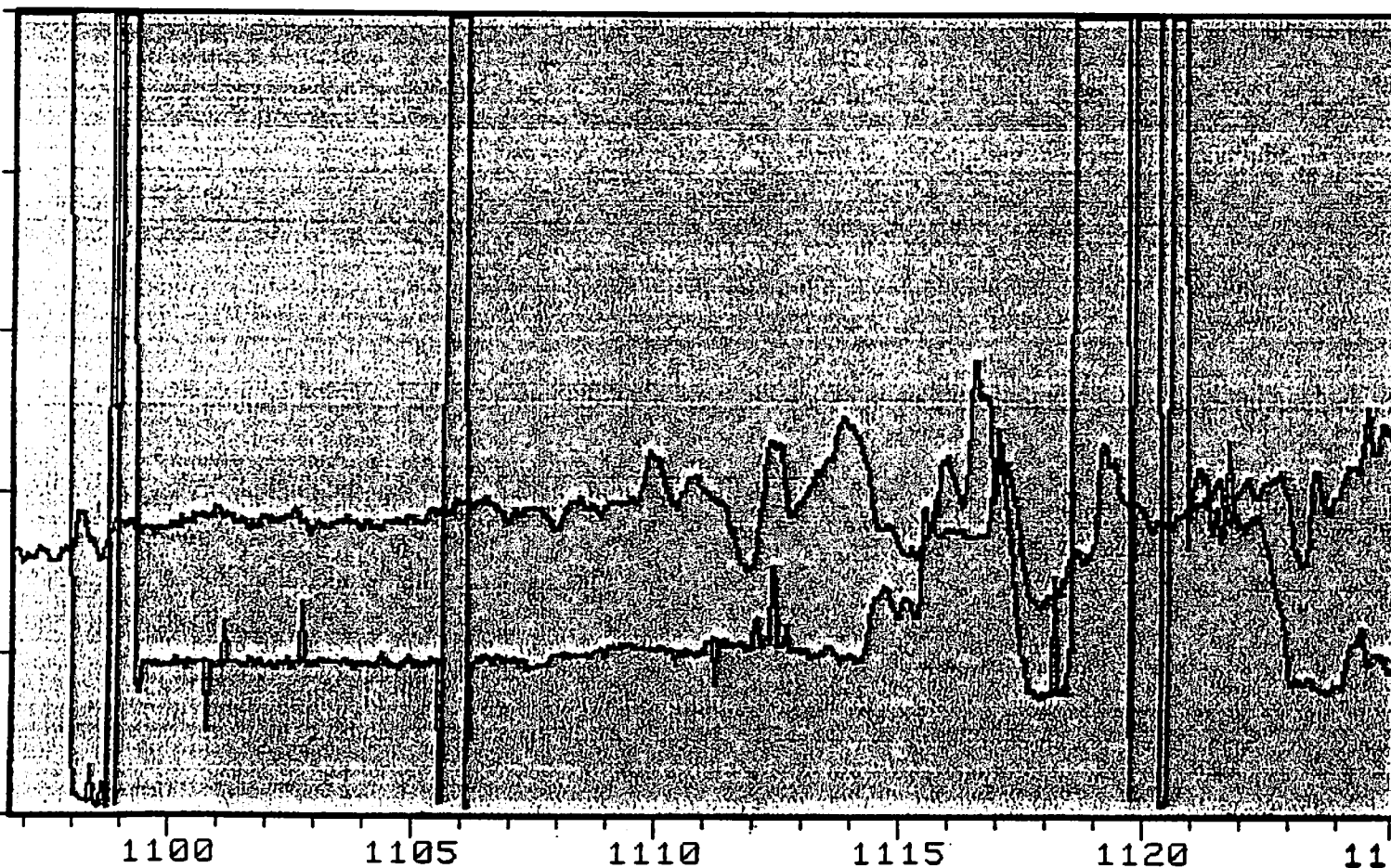
500.00

25.00

250.00

0.00

0.00



1100

1105

1110

1115

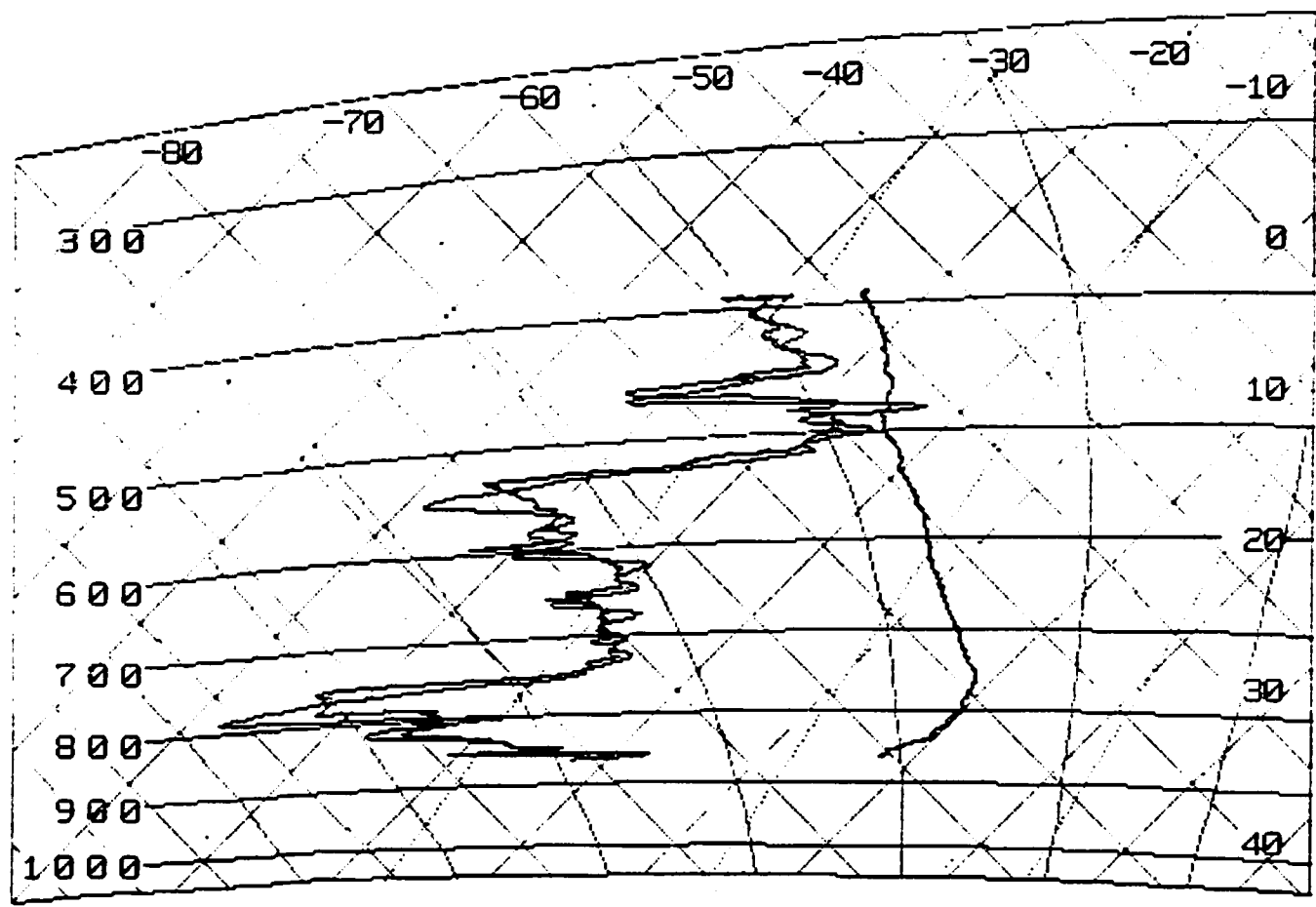
1120

1125

A	B	C	D	E	F	G	H
SELECT	PARAS	FREQ	ZOOM				

A462 26-JUN-96 11:26:39 018 Ω 50.69 -12.00 AS P

HDG	SPR	PHGT	TAS	TAT	DEW	WIND	
deg T	mb	kft	knots	C	C	deg m/s	
181.	864.	4.3	206.	7.6	-12.4	316/ 4	



GE DP

TWC DP



A462 26-JUN-96 11:28:21 018 Q 50.59 -12.00 RV P

HGT degT	SPR mb	PHGT kft	TAS knots	TAT C	DEW C	WIND deg m/s	
183.	894.	3.4	194.	8.0	-5.4	351/3	

PRES HGT 1046.50 m OZONE MR 43.47 ppb CO MR 233.00 ppb

0.00 100.00 200.00 300.00 400.00 500.00

10000.00 10000.00

8000.00 8000.00

6000.00 6000.00

4000.00 4000.00

2000.00 2000.00

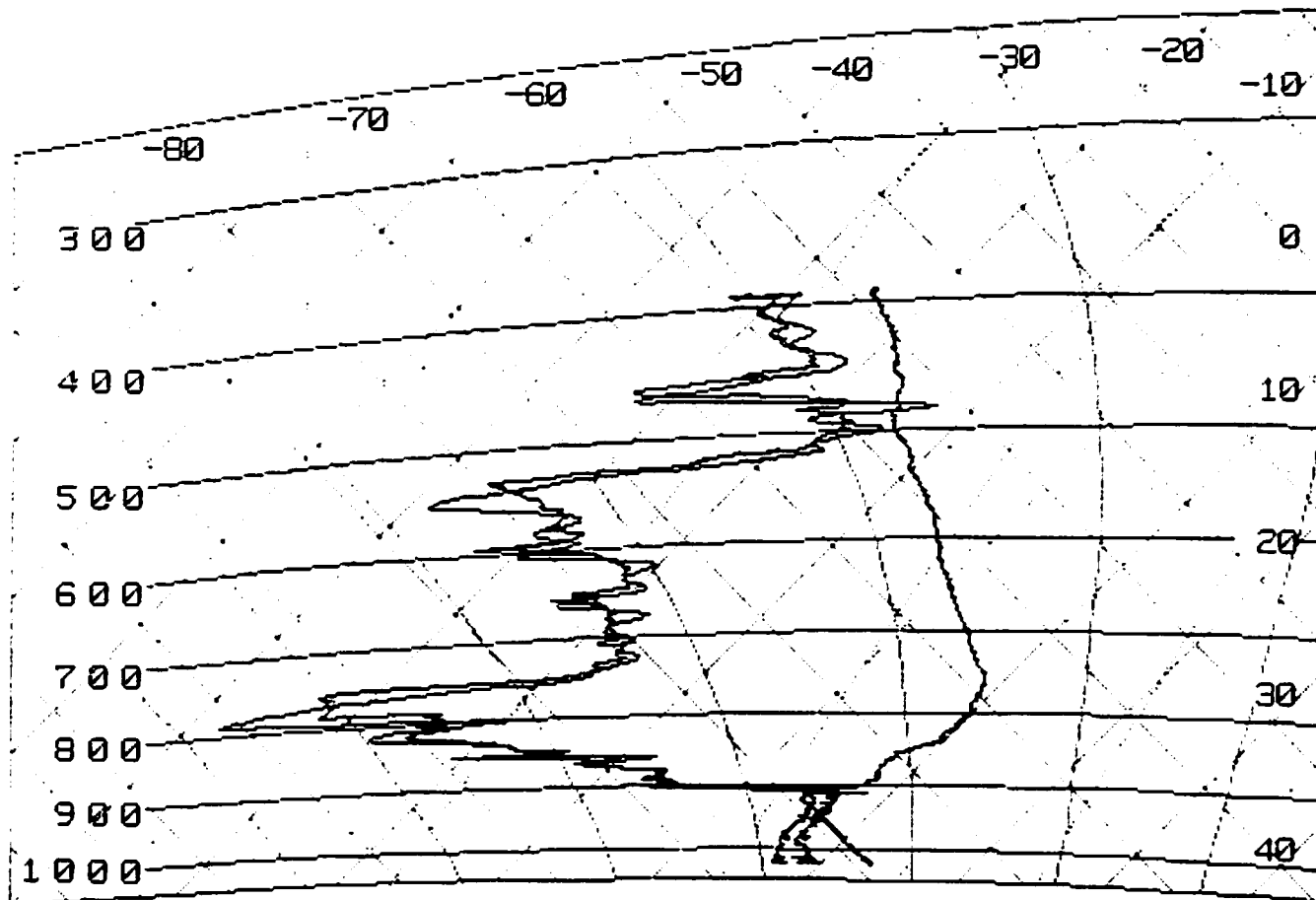
0.00 0.00

0.00 333.33 666.67 1000.00 1333.33 1666.67

A	B	C	D	E	F	G	H
---	---	---	---	---	---	---	---

A462 26-JUN-96 11:37:09 021 Ω 50.48 -12.06 AS P

HDG degT	SPR mb	PHGT kft	TAS knots	TAT C	DEW C	WIND deg m/s
29.	1015.	0.0	185.	12.5	6.8	025/ 4



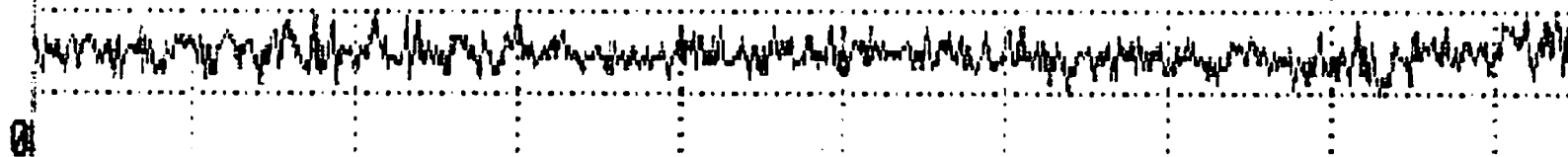
GE DP

TWC DP

A	B	C	D	E	F	G	H
SELECT	PARAS	FILE	ZOOM		VIDEO	HELP	

PCASP CONC/cc

500



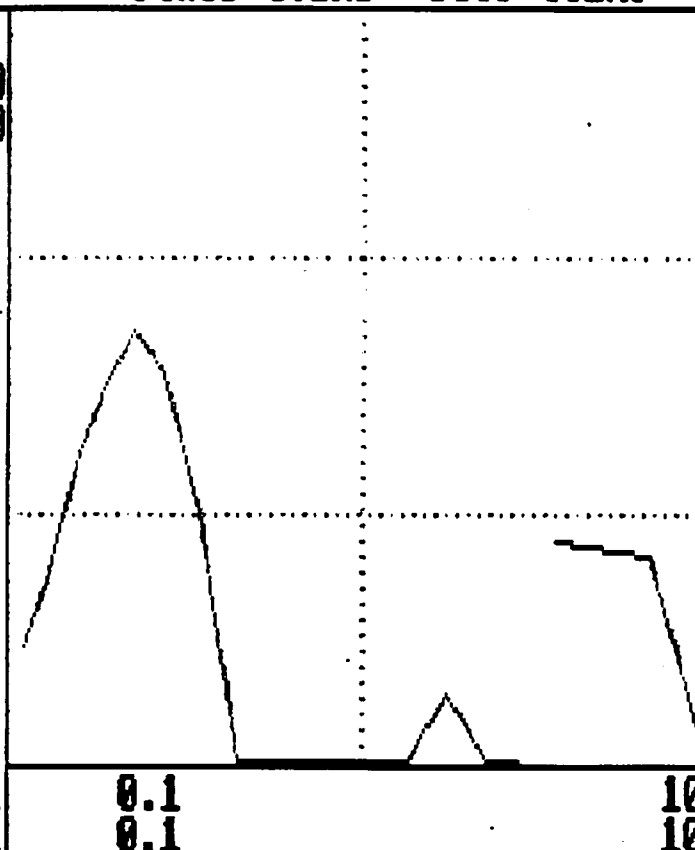
PCASP CONC #/cc 160  
PCASP MEAN RAD um 0.1  
PCASP MASS ug/m3 17.30

FSSP CONC #/cc 1  
FSSP MEAN RAD u 2.4  
FSSP LWC gm/m3 0.00

2D-C CONC #/l 0.0  
2D-C MAX SIZE um 0  
2D-C LWC g/m3 0.000e+000

PCASP COUNT FSSP COUNT

1000  
1000

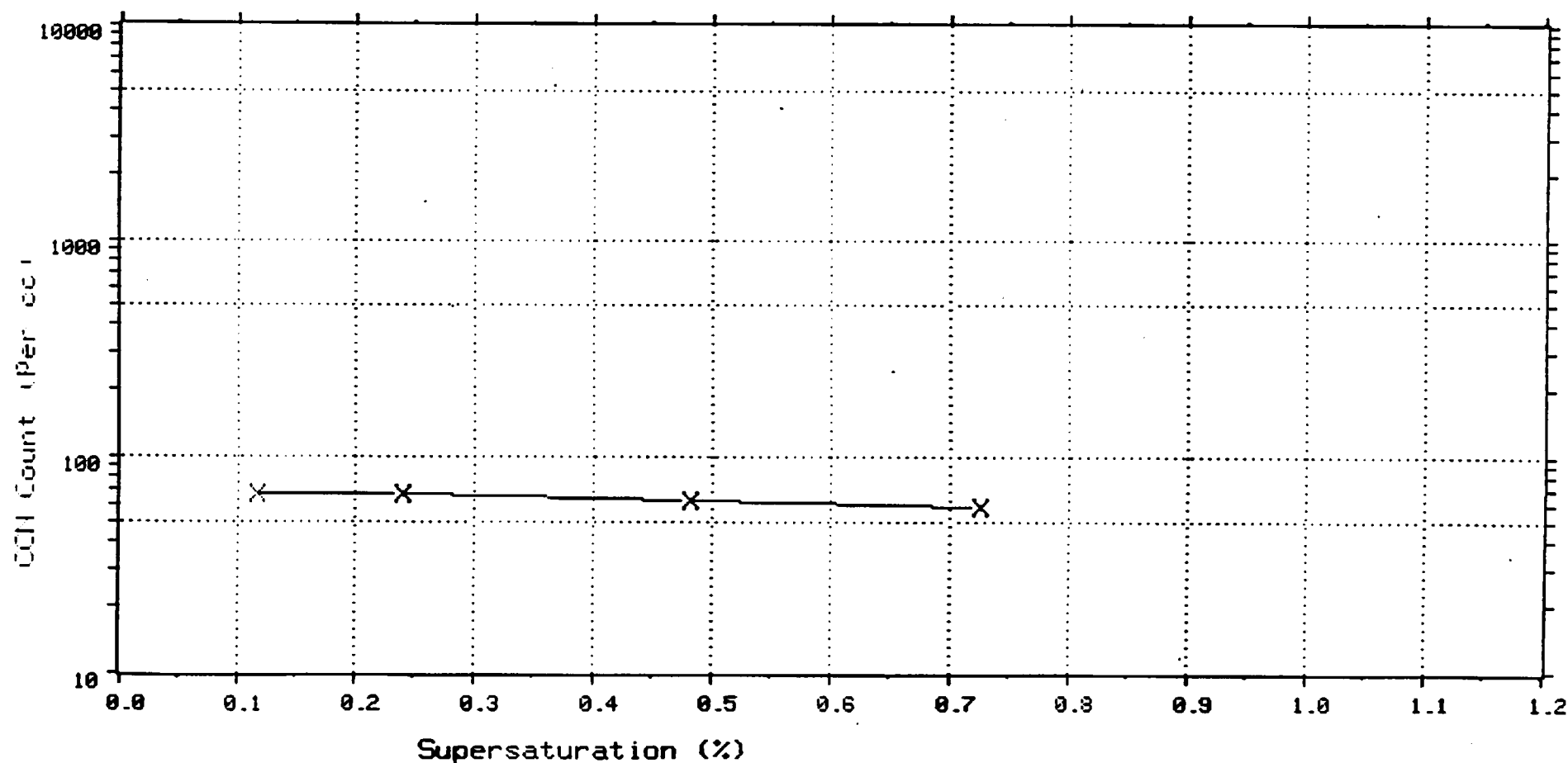


96-06-26 13:48:24

A462 26-JUN-96 13:49:27 057  $\Omega$  49.39 -11.28 FC P

HDG degT	SPR mb	PHGT kft	TAS knots	TAT C	DEW C	WIND deg m/s	
264.	955.	1.6	189.	7.6	6.7	009/ 7	

— PLOT 5 134241



A	B	C	D	E	F	G	H
SELECT	CCNMEN	HOLD				VIDEO	



## LIST OF FORMS USED ON FLIGHT

No. of forms	Form Title
	Aircraft Scientist de-briefing sheet Aircraft Scientist log Aircraft Scientist post flight requirements sheet Interactive log
	Flight Leader pre-flight check form Flight Leader in-flight check form Flight Leader in-flight log Flight Leader Video tape log (photocopy original)
	SAFIRE log CCN log MARSS log DEIMOS log Chemistry log
	Particulate / Filter boom Operator's log 2DC / FSSP / Holography Operator's log Sonde Ejector's log Navigator's log Photographic log (photocopy original)
	Instrument status forms RTD prints Raw data plots Weather charts Satellite pictures GPS track

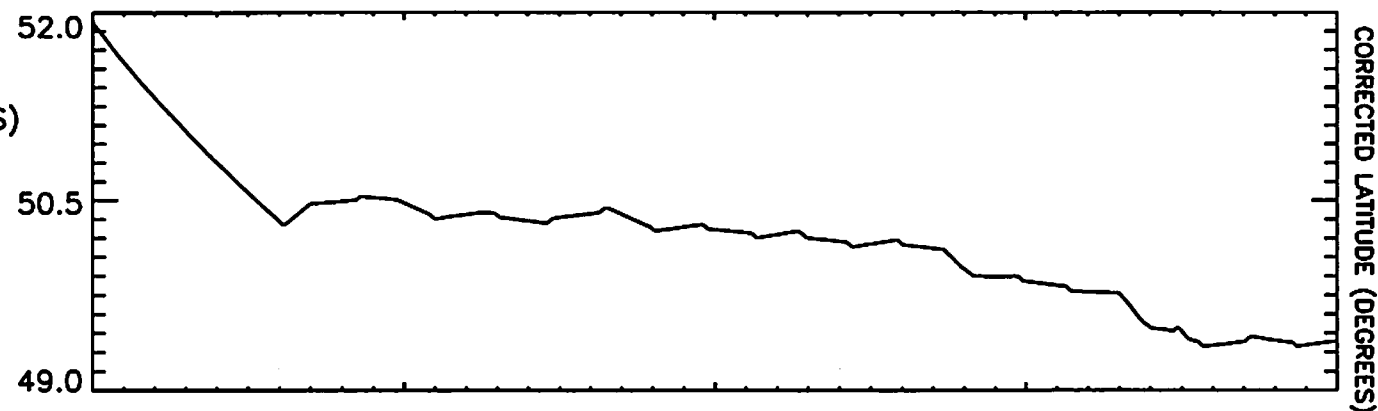
[illegible]

A462 26-JUN-96

Run no. R\_all

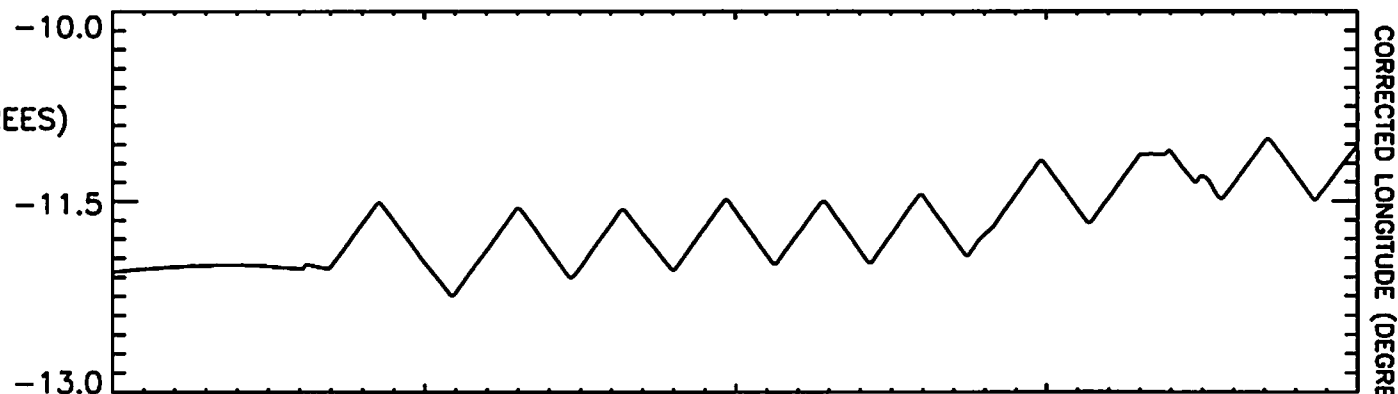
CORRECTED LATITUDE (DEGREES)

Parameter no. 730  
No. of obs 10253  
Mean 50.2132  
Standard dev 0.532486  
Max value 51.9186  
Min value 49.3456



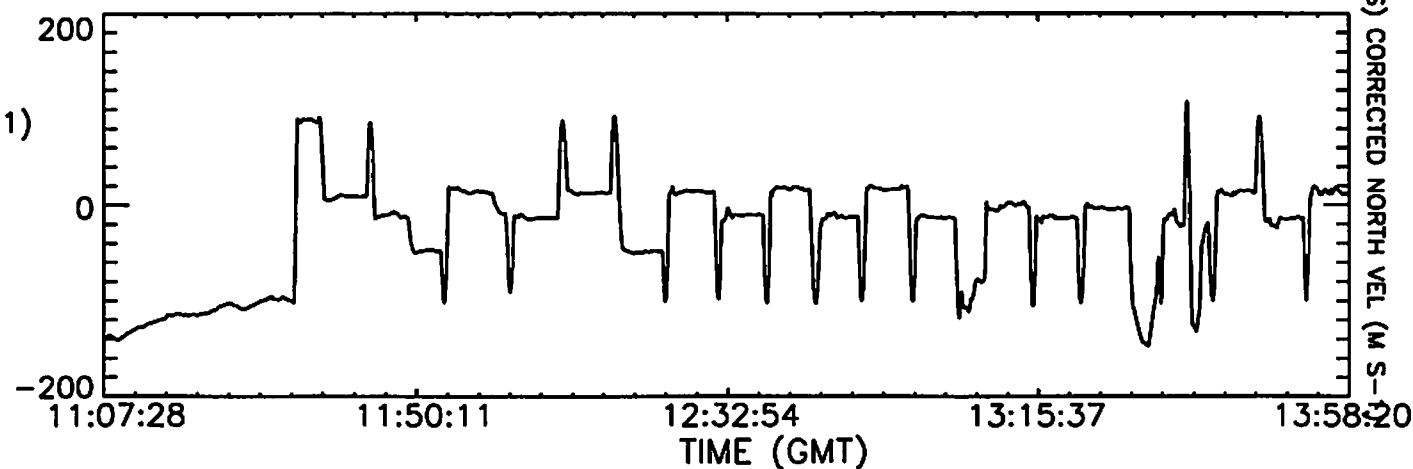
CORRECTED LONGITUDE (DEGREES)

Parameter no. 731  
No. of obs 10253  
Mean -11.6960  
Standard dev 0.301309  
Max value -11.0109  
Min value -12.2471



CORRECTED NORTH VEL (M S-1)

Parameter no. 735  
No. of obs 10253  
Mean -27.4159  
Standard dev 53.5480  
Max value 107.987  
Min value -146.916



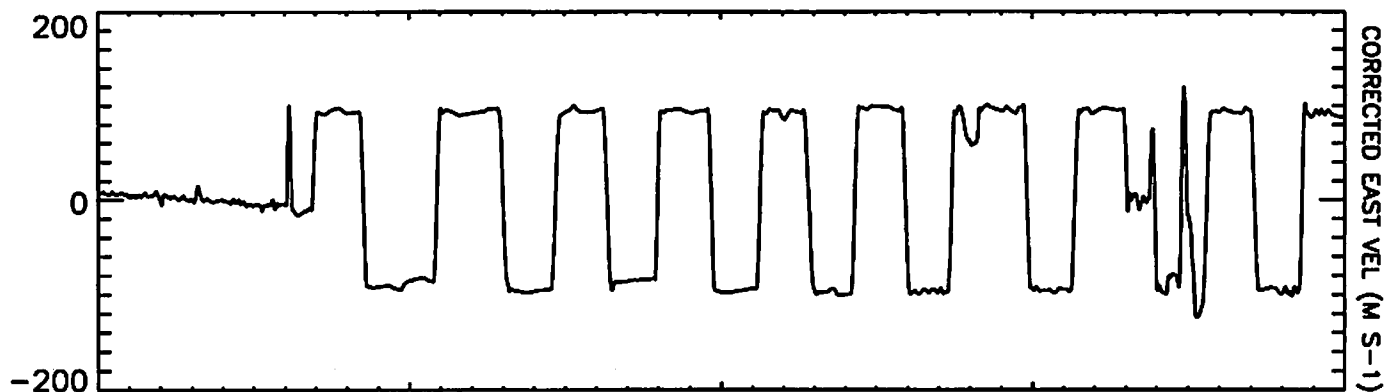
1 second averages

A462 26-JUN-96

Run no. R\_all

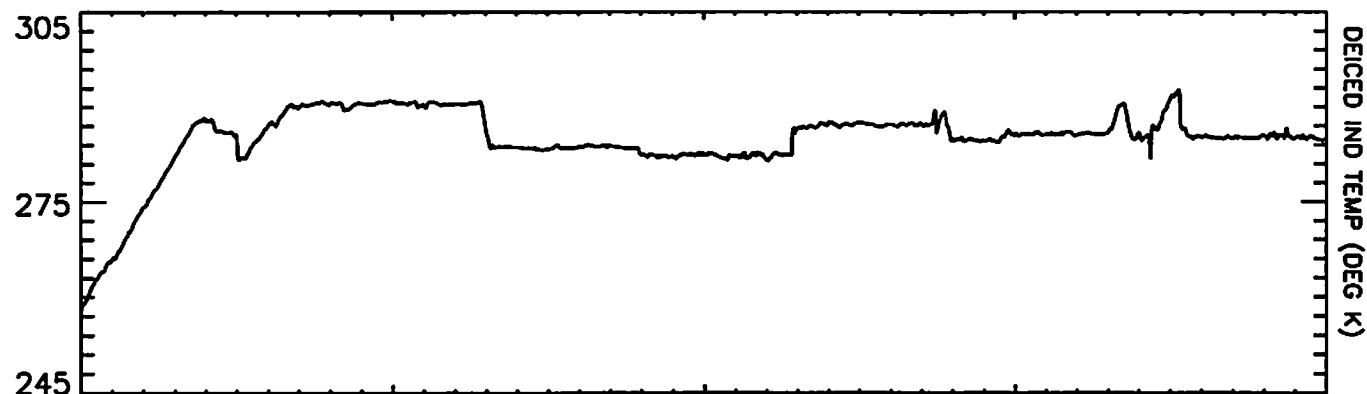
CORRECTED EAST VEL (M S-1)

Parameter no. 736  
No. of obs 10253  
Mean 7.00375  
Standard dev 80.7413  
Max value 119.115  
Min value -123.569



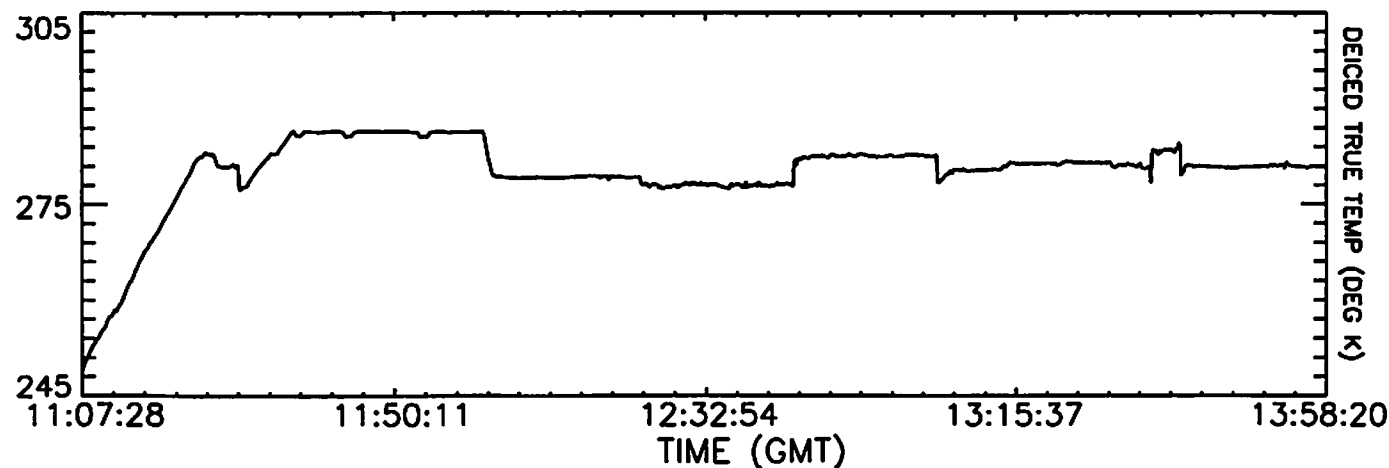
DEICED IND TEMP (DEG K)

Parameter no. 519  
No. of obs 10253  
Mean 284.876  
Standard dev 5.29930  
Max value 292.809  
Min value 258.074



DEICED TRUE TEMP (DEG K)

Parameter no. 520  
No. of obs 10253  
Mean 280.097  
Standard dev 5.97822  
Max value 286.545  
Min value 248.973



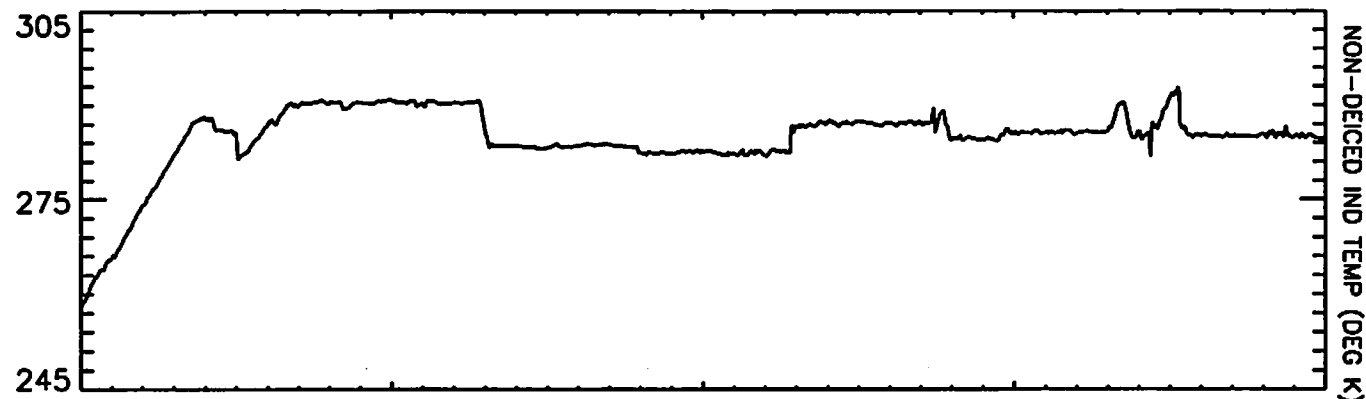
1 second averages

A462 26-JUN-96

Run no. R\_all

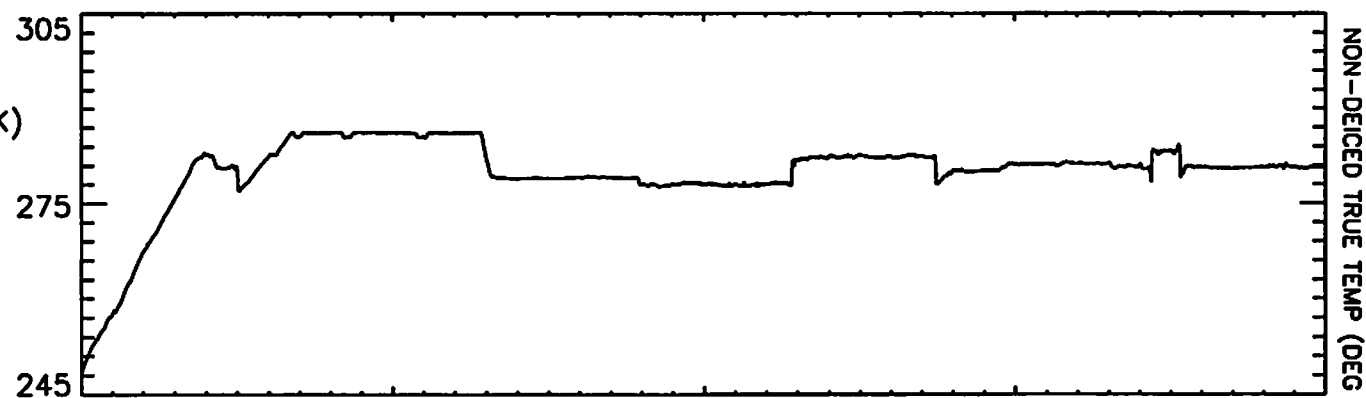
NON-DEICED IND TEMP (DEG K)

Parameter no. 524  
No. of obs 10253  
Mean 284.809  
Standard dev 5.28772  
Max value 292.735  
Min value 257.900



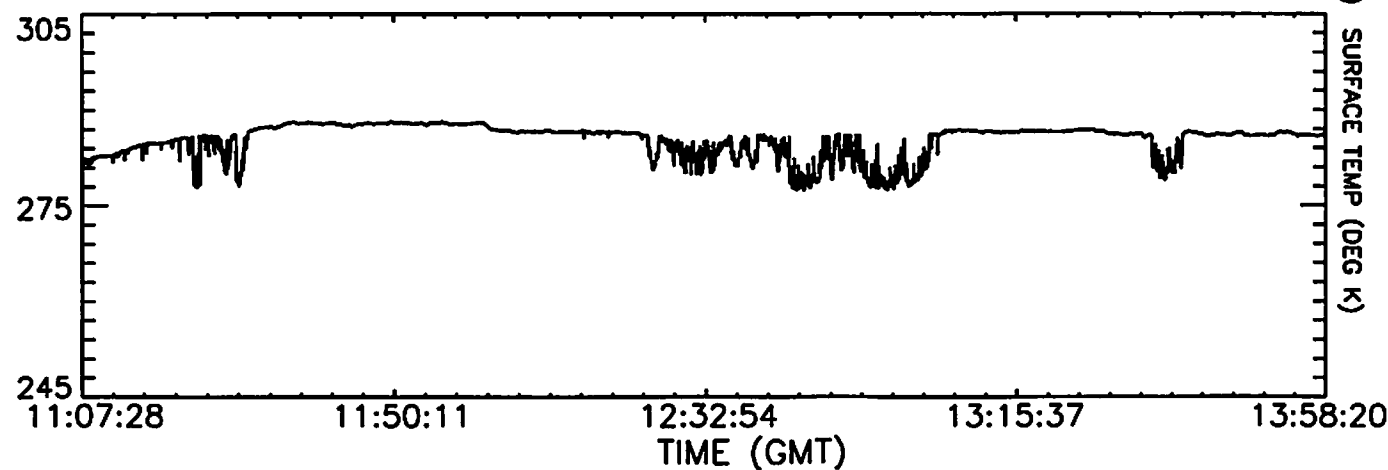
NON-DEICED TRUE TEMP (DEG K)

Parameter no. 525  
No. of obs 10253  
Mean 279.889  
Standard dev 5.99221  
Max value 286.337  
Min value 248.537



SURFACE TEMP (DEG K)

Parameter no. 537  
No. of obs 10253  
Mean 285.242  
Standard dev 2.59144  
Max value 288.244  
Min value 277.269



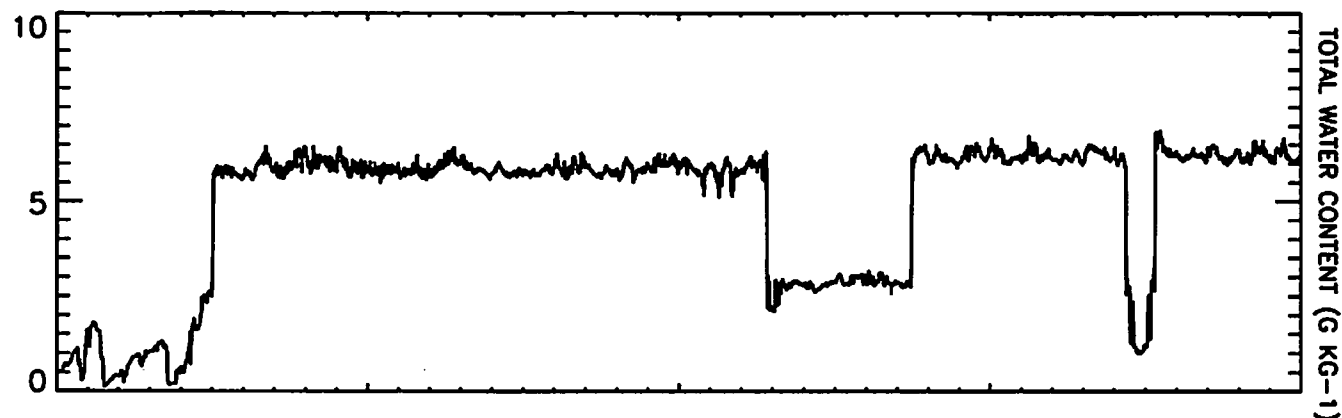
1 second averages

A462 26-JUN-96

Run no. R\_all

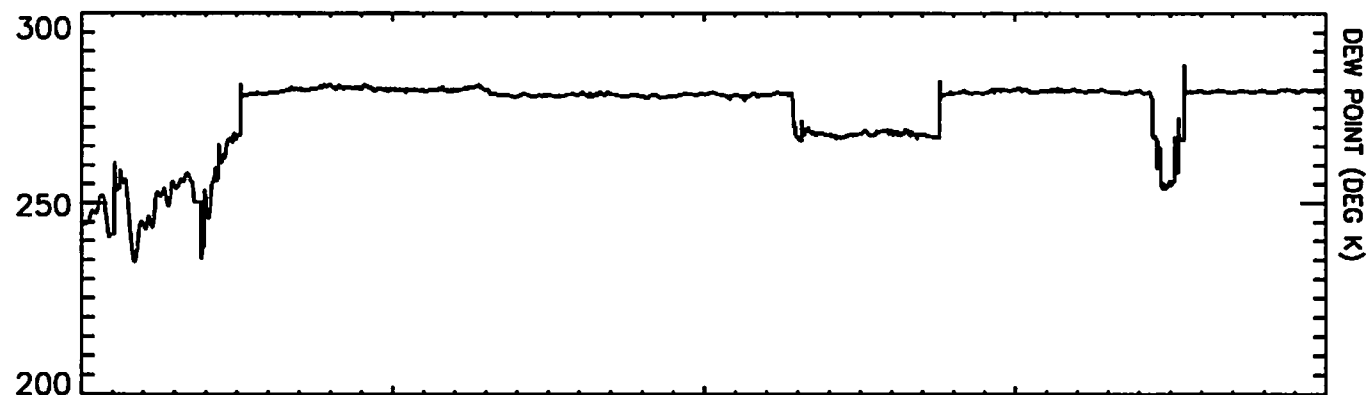
TOTAL WATER CONTENT (G KG-1)

Parameter no. 572  
No. of obs 10253  
Mean 4.91050  
Standard dev 1.91658  
Max value 6.89643  
Min value 0.119022



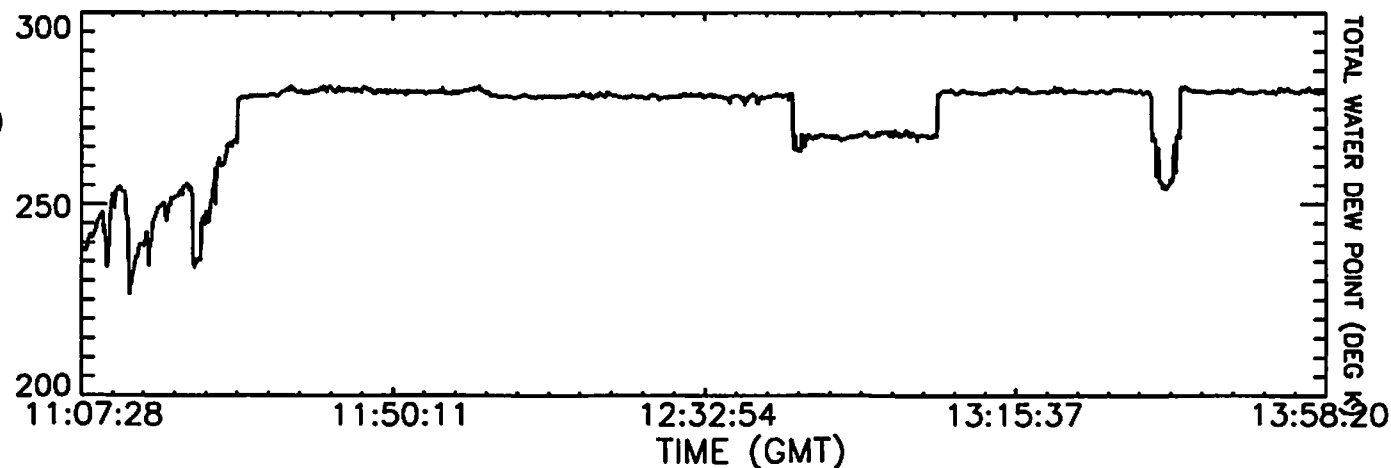
DEW POINT (DEG K)

Parameter no. 529  
No. of obs 10253  
Mean 273.982  
Standard dev 10.1066  
Max value 286.594  
Min value 234.453



TOTAL WATER DEW POINT (DEG K)

Parameter no. 725  
No. of obs 10253  
Mean 273.400  
Standard dev 11.1256  
Max value 281.068  
Min value 226.406



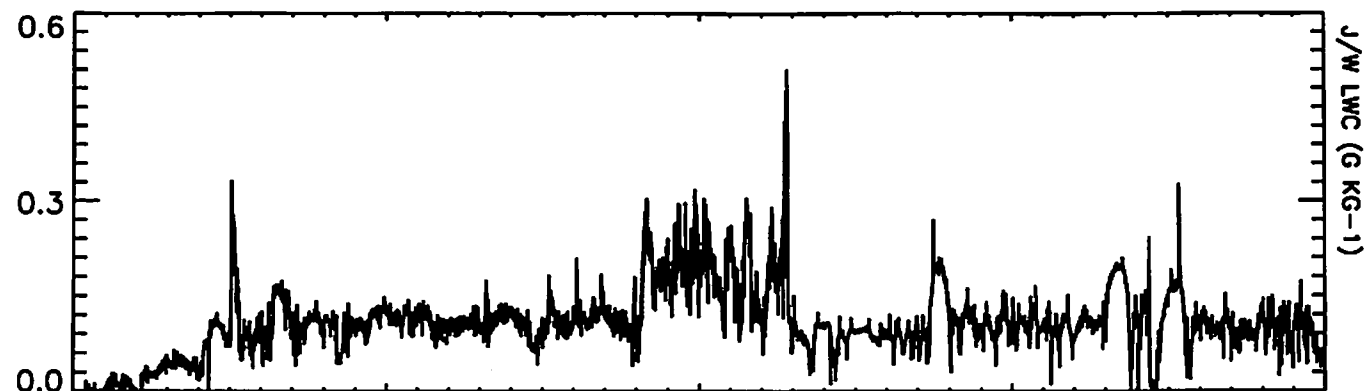
1 second averages

A462 26-JUN-96

Run no. R\_all

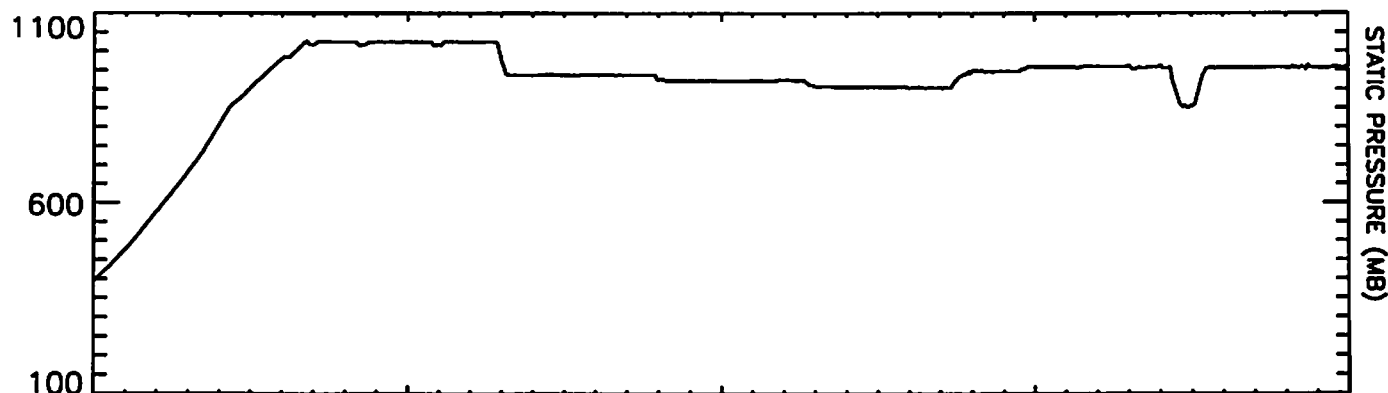
J/W LWC (G KG-1)

Parameter no. 535  
No. of obs 10253  
Mean 0.107031  
Standard dev 5.533877e-02  
Max value 0.511221  
Min value -8.746376e-02



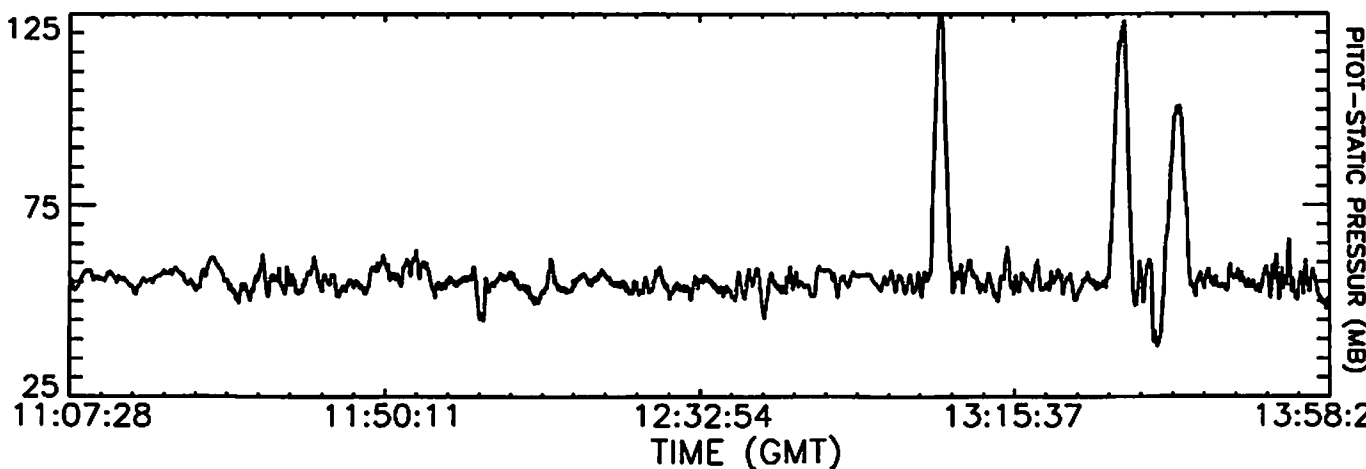
STATIC PRESSURE (MB)

Parameter no. 576  
No. of obs 10253  
Mean 912.893  
Standard dev 122.989  
Max value 1026.42  
Min value 393.464



PITOT-STATIC PRESSUR (MB)

Parameter no. 577  
No. of obs 10253  
Mean 56.9657  
Standard dev 9.77633  
Max value 124.641  
Min value 38.2728



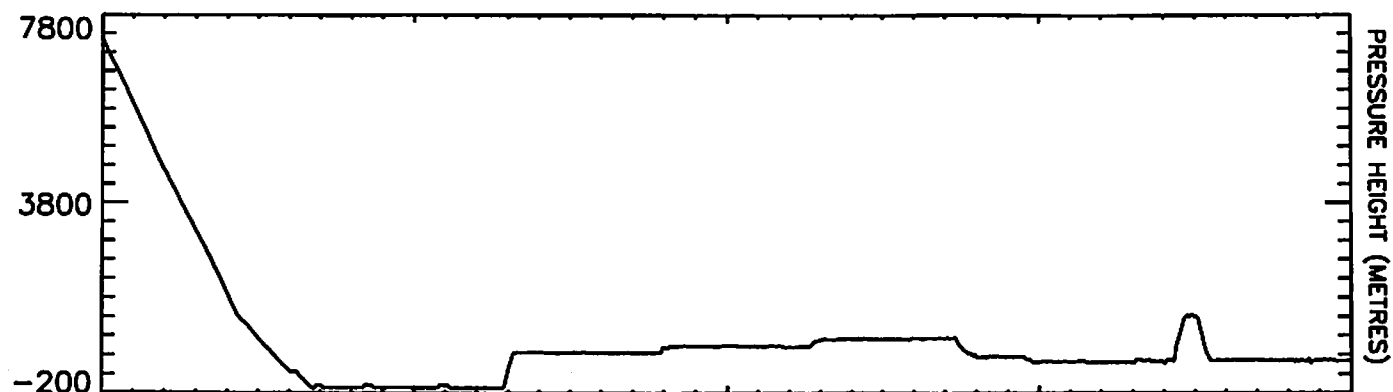
1 second averages

A462 26-JUN-96

Run no. R\_all

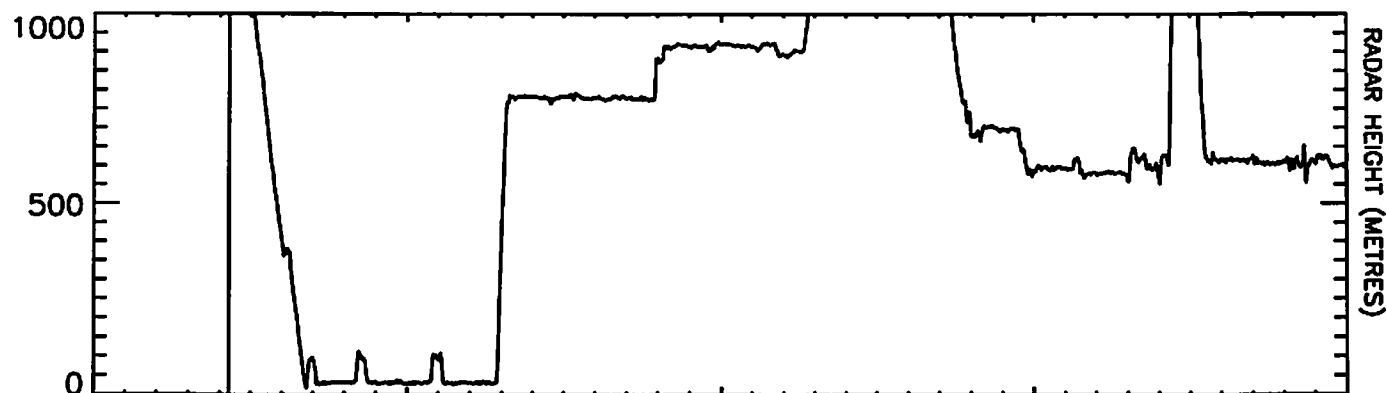
### PRESSURE HEIGHT (METRES)

Parameter no. 578  
No. of obs 10253  
Mean 951.391  
Standard dev 1345.86  
Max value 7301.58  
Min value -109.031



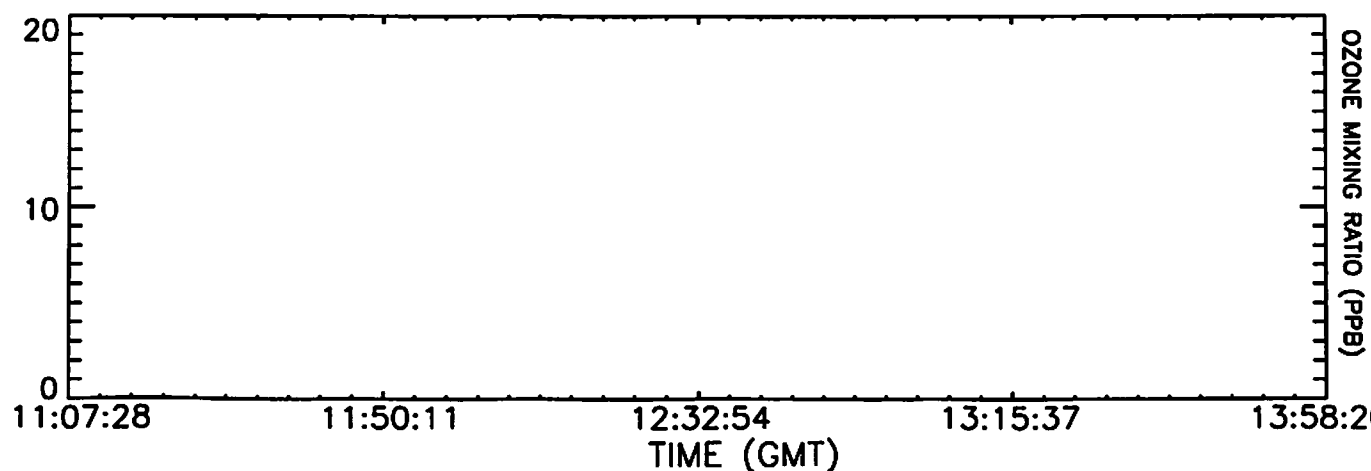
### RADAR HEIGHT (METRES)

Parameter no. 575  
No. of obs 10253  
Mean 597.298  
Standard dev 396.135  
Max value 1522.15  
Min value 0.000000



### OZONE MIXING RATIO (PPB)

Parameter no. 574  
No. of obs 10253  
Mean 0.000000  
Standard dev 0.000000  
Max value 0.000000  
Min value 0.000000



1 second averages

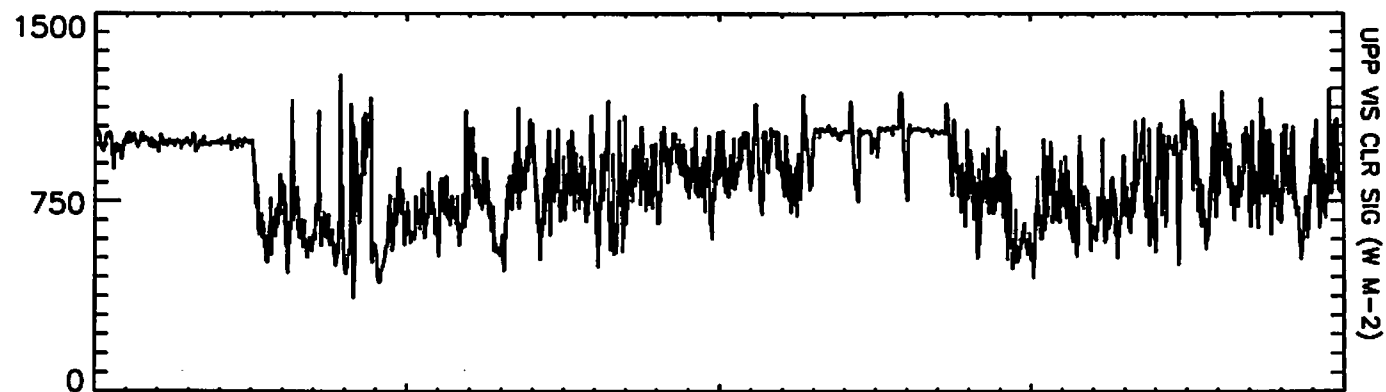


A462 26-JUN-96

Run no. R\_all

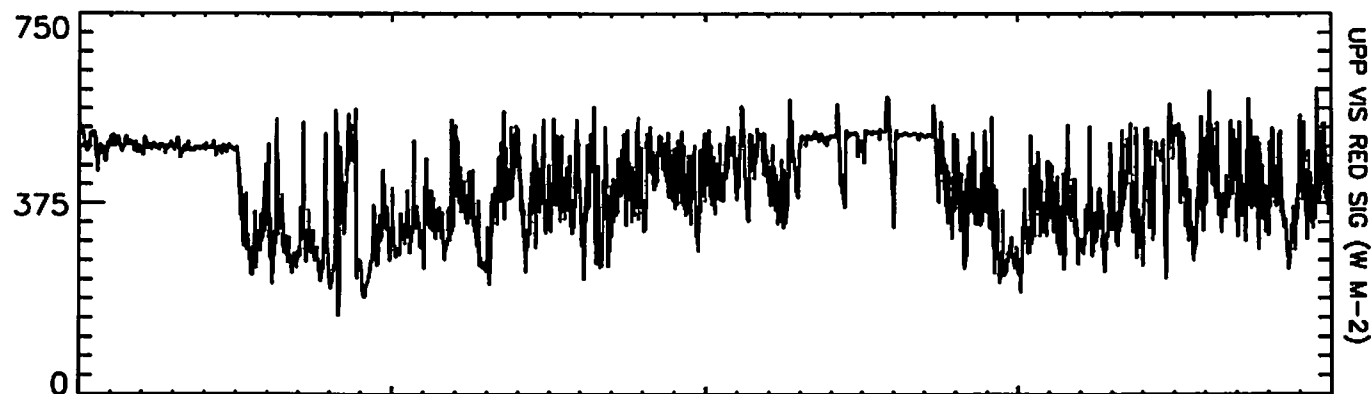
UPP VIS CLR SIG (W M-2)

Parameter no. 673  
No. of obs 10253  
Mean 835.791  
Standard dev 160.715  
Max value 1255.45  
Min value 365.535



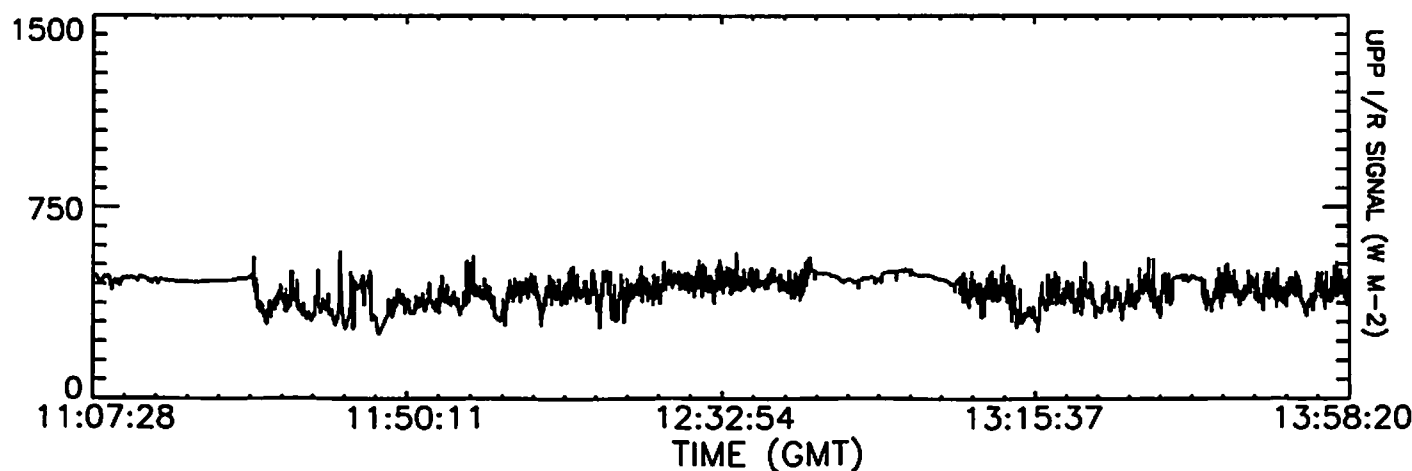
UPP VIS RED SIG (W M-2)

Parameter no. 674  
No. of obs 10253  
Mean 403.649  
Standard dev 86.8705  
Max value 602.446  
Min value 153.153



UPP I/R SIGNAL (W M-2)

Parameter no. 675  
No. of obs 10253  
Mean 423.826  
Standard dev 53.3387  
Max value 576.098  
Min value 257.020



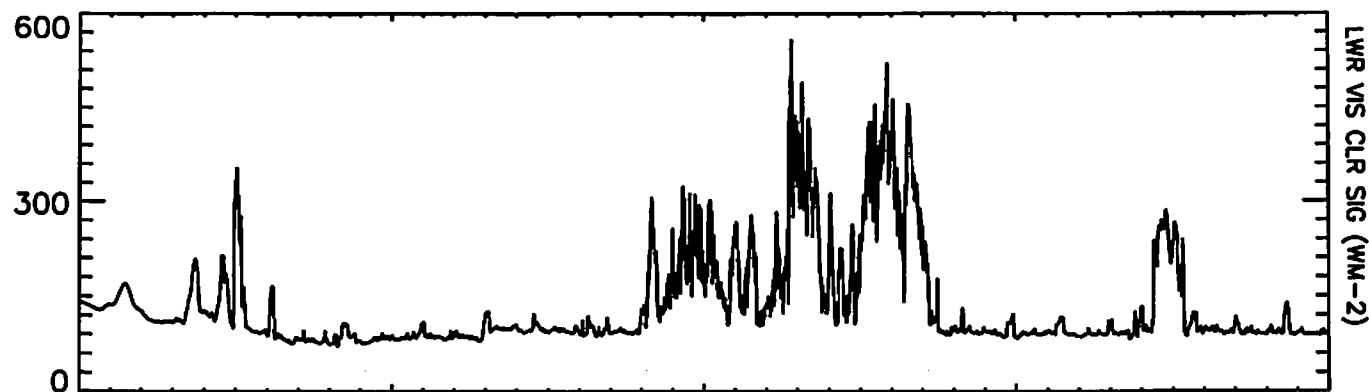
1 second averages

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Run no. R\_all

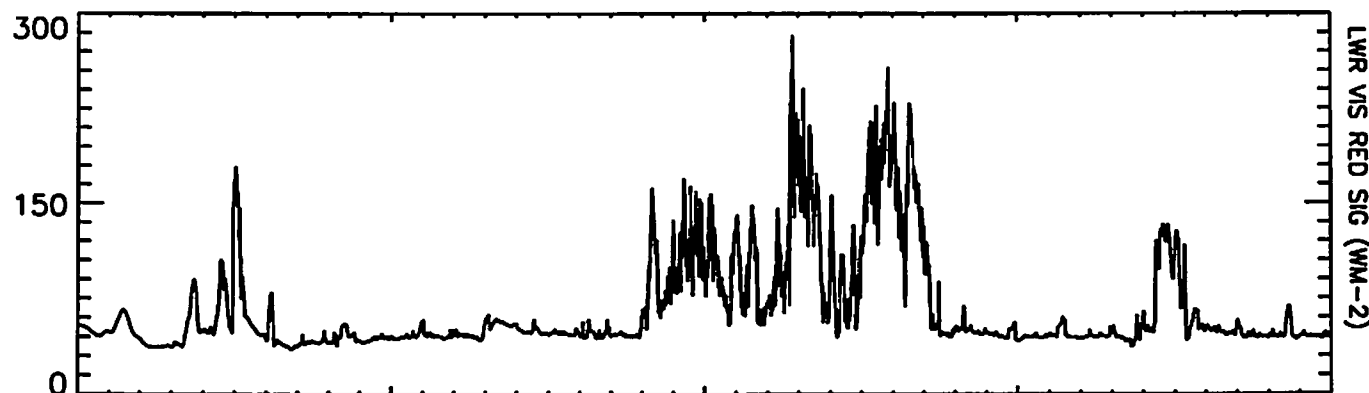
LWR VIS CLR SIG (WM-2)

Parameter no. 682  
No. of obs 10253  
Mean 135.566  
Standard dev 76.7879  
Max value 558.468  
Min value 71.3710



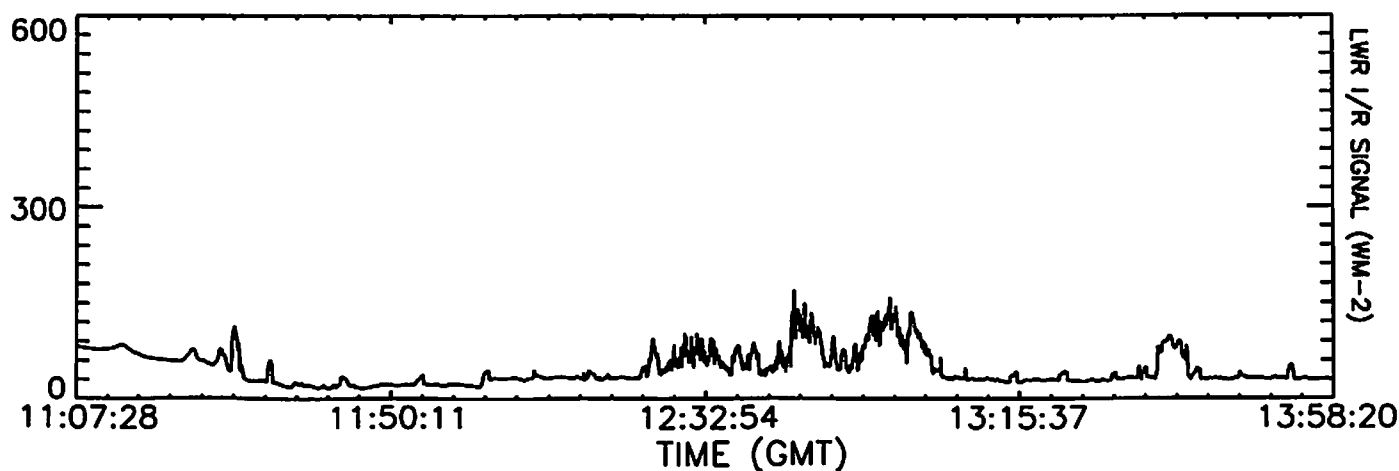
LWR VIS RED SIG (WM-2)

Parameter no. 683  
No. of obs 10253  
Mean 66.3501  
Standard dev 39.0779  
Max value 282.560  
Min value 34.7766



LWR I/R SIGNAL (WM-2)

Parameter no. 684  
No. of obs 10253  
Mean 47.1915  
Standard dev 26.6323  
Max value 169.725  
Min value 16.0715



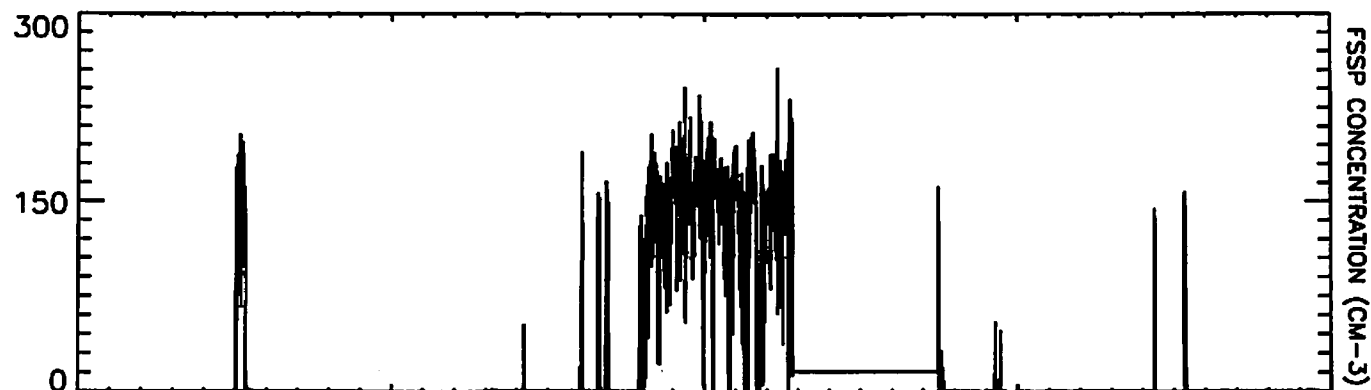
1 second averages

A462 26-JUN-96

Run no. R\_all

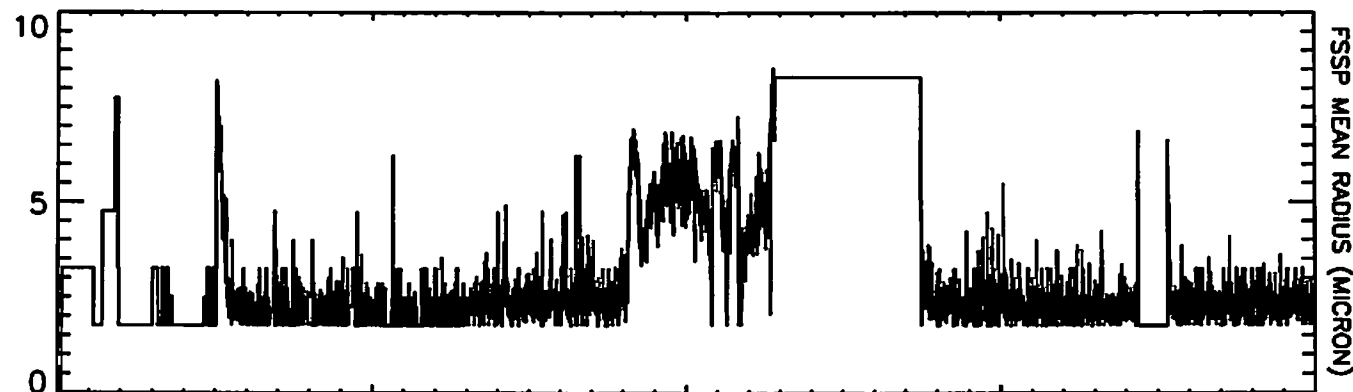
FSSP CONCENTRATION (CM-3)

Parameter no. 901  
No. of obs 10253  
Mean 21.2320  
Standard dev 50.6676  
Max value 256.963  
Min value 0.000000



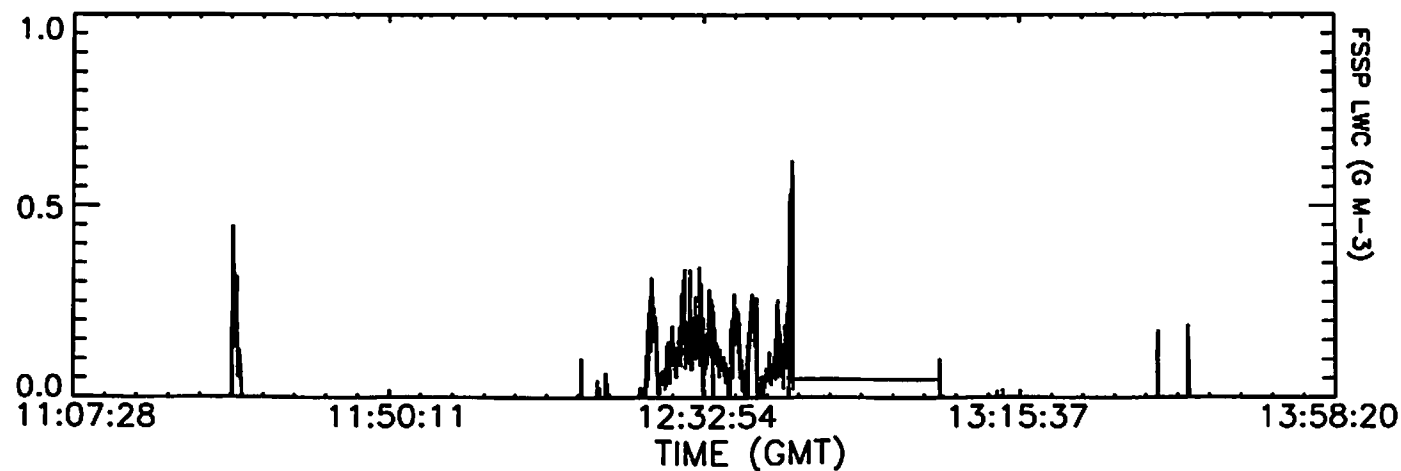
FSSP MEAN RADIUS (MICRON)

Parameter no. 902  
No. of obs 10253  
Mean 3.35805  
Standard dev 2.14367  
Max value 8.55288  
Min value 0.000000



FSSP LWC (G M-3)

Parameter no. 903  
No. of obs 10253  
Mean  $2.214897 \times 10^{-2}$   
Standard dev  $5.341204 \times 10^{-2}$   
Max value 0.620207  
Min value 0.000000



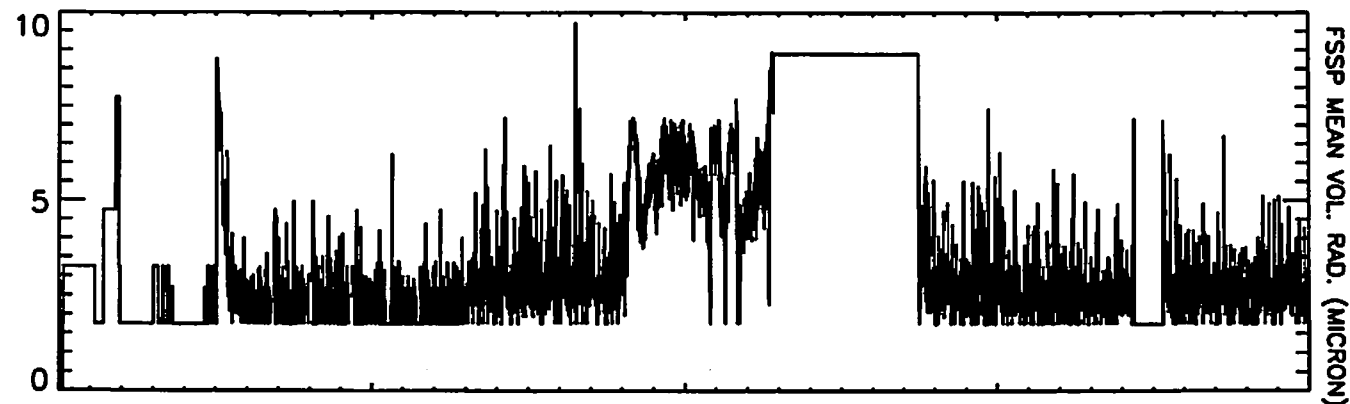
1 second averages

A462 26-JUN-96

Run no. R\_all

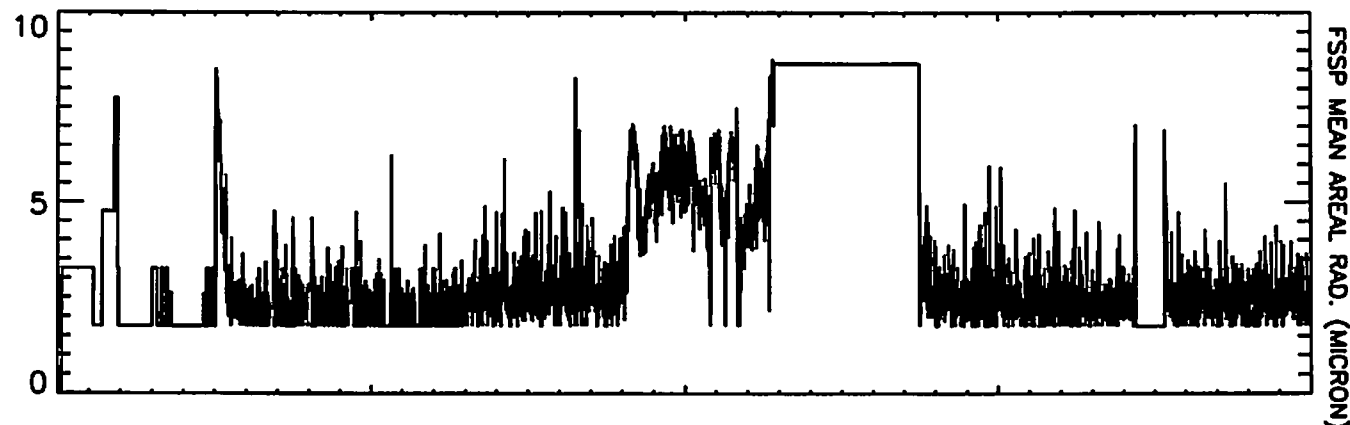
FSSP MEAN VOL. RAD. (MICRON)

Parameter no. 904  
No. of obs 10253  
Mean 3.65881  
Standard dev 2.30501  
Max value 9.72057  
Min value 0.000000



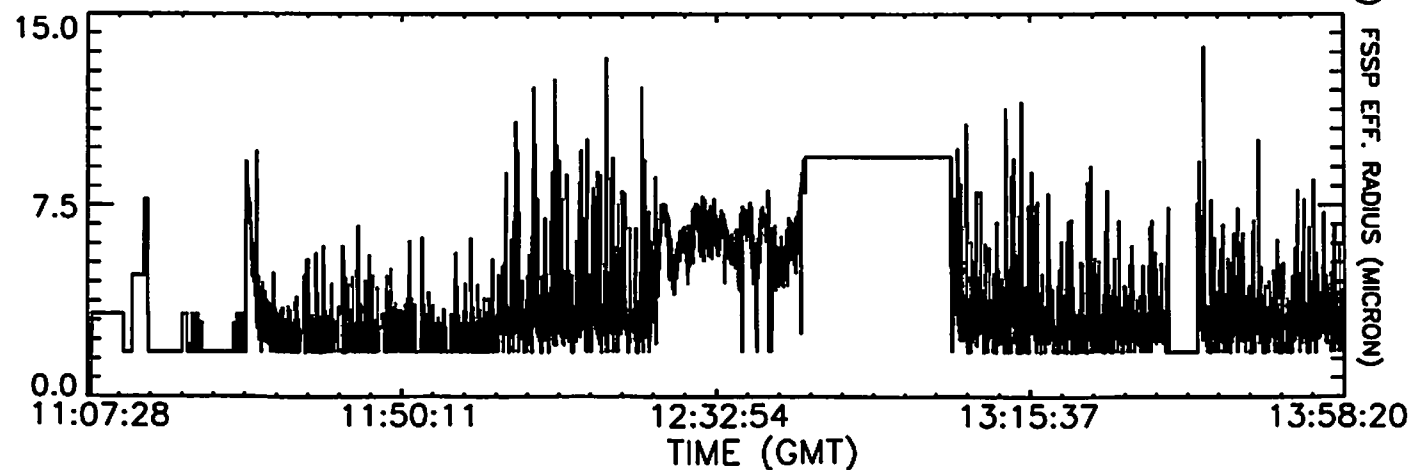
FSSP MEAN AREAL RAD. (MICRON)

Parameter no. 905  
No. of obs 10253  
Mean 3.51153  
Standard dev 2.23851  
Max value 8.78825  
Min value 0.000000



FSSP EFF. RADIUS (MICRON)

Parameter no. 906  
No. of obs 10253  
Mean 3.99140  
Standard dev 2.49144  
Max value 13.7332  
Min value 0.000000



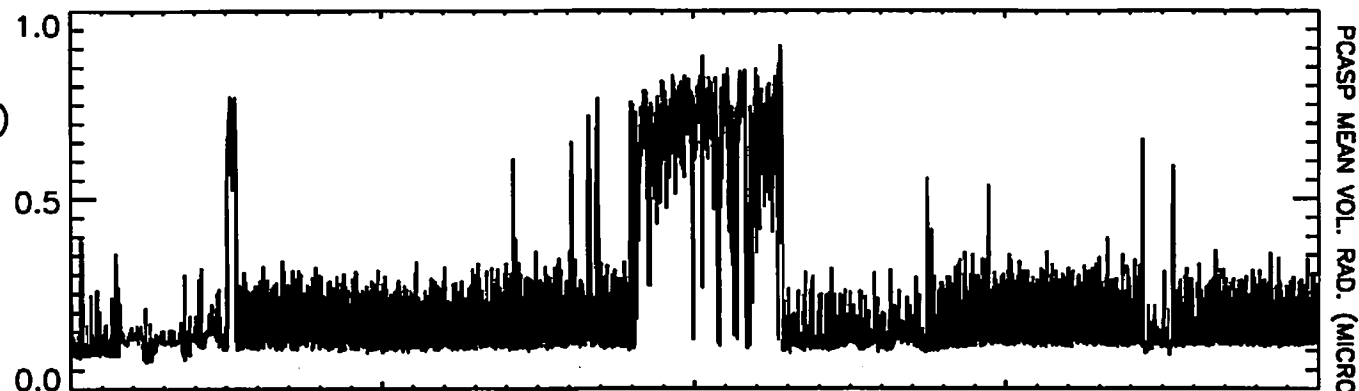
1 second averages

A462 26-JUN-96

Run no. R\_all

PCASP MEAN VOL. RAD. (MICRON)

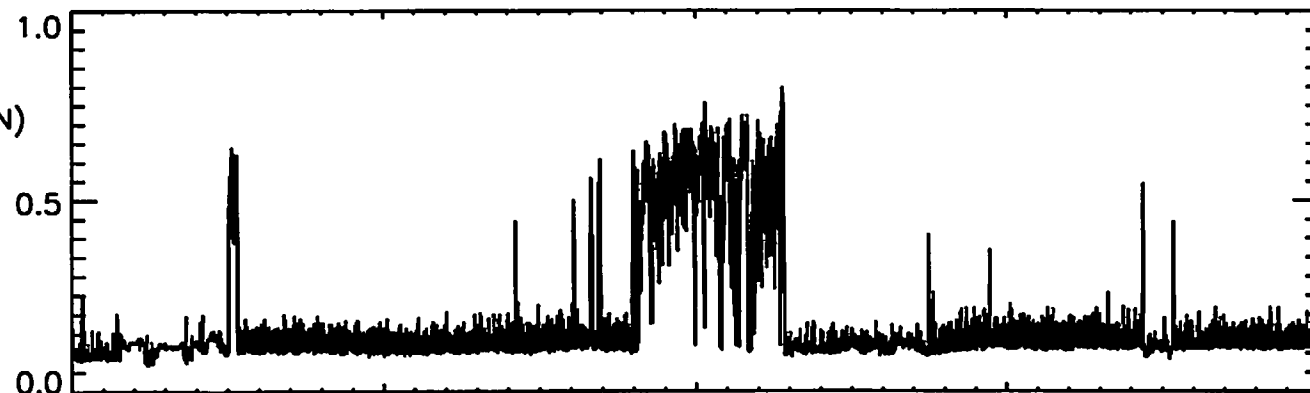
Parameter no. 922  
No. of obs 10253  
Mean 0.224811  
Standard dev 0.182737  
Max value 0.906848  
Min value 6.766292e-02



PCASP MEAN VOL. RAD. (MICRON)

PCASP MEAN AREAL RAD (MICRON)

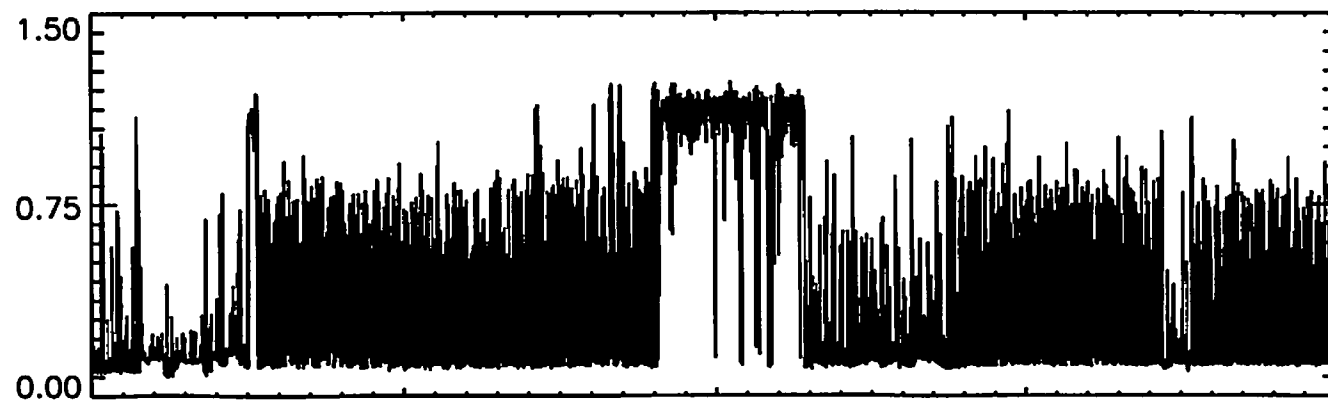
Parameter no. 923  
No. of obs 10253  
Mean 0.177068  
Standard dev 0.142612  
Max value 0.797960  
Min value 6.639692e-02



PCASP MEAN AREAL RAD (MICRON)

PCASP EFF. RADIUS (MICRON)

Parameter no. 924  
No. of obs 10253  
Mean 0.382345  
Standard dev 0.328026  
Max value 1.23146  
Min value 7.023311e-02



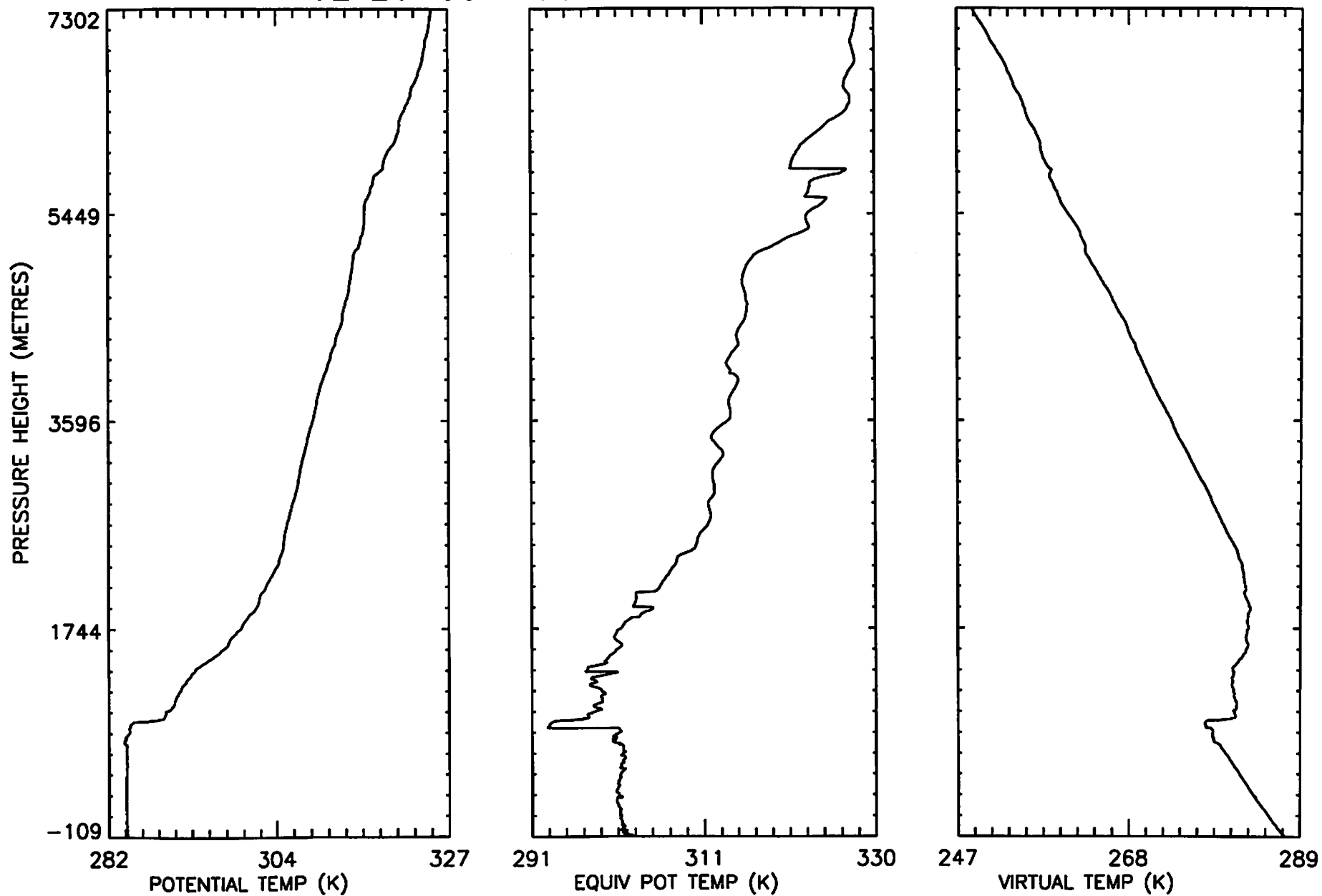
PCASP EFF. RADIUS (MICRON)

11:07:28 11:50:11 12:32:54 13:15:37 13:58:20  
TIME (GMT)

1 second averages

A462 26-JUN-96 Profile P1

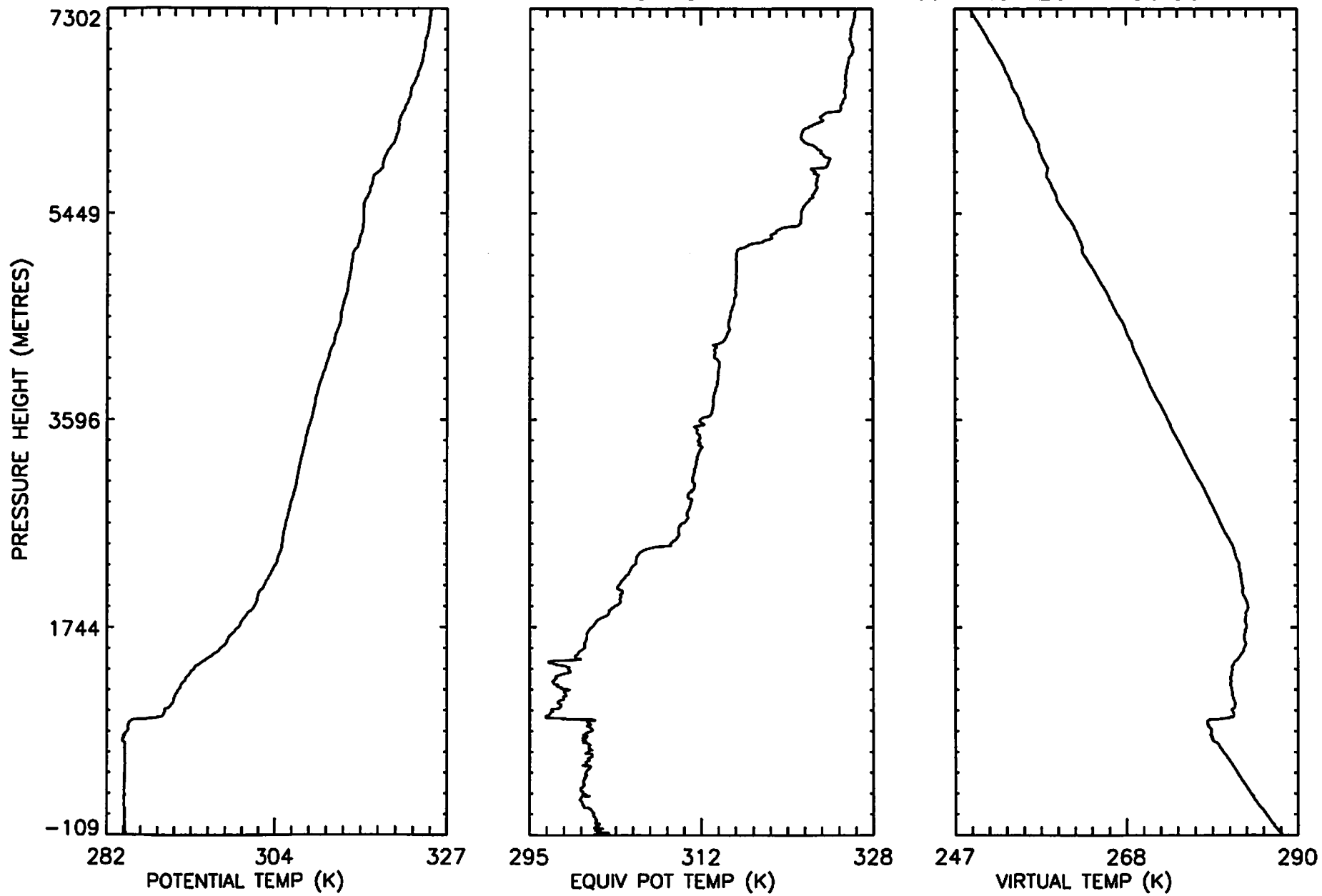
Times 11:07:28-11:36:30 GMT



1 second averages

A462 26-JUN-96 Profile P1

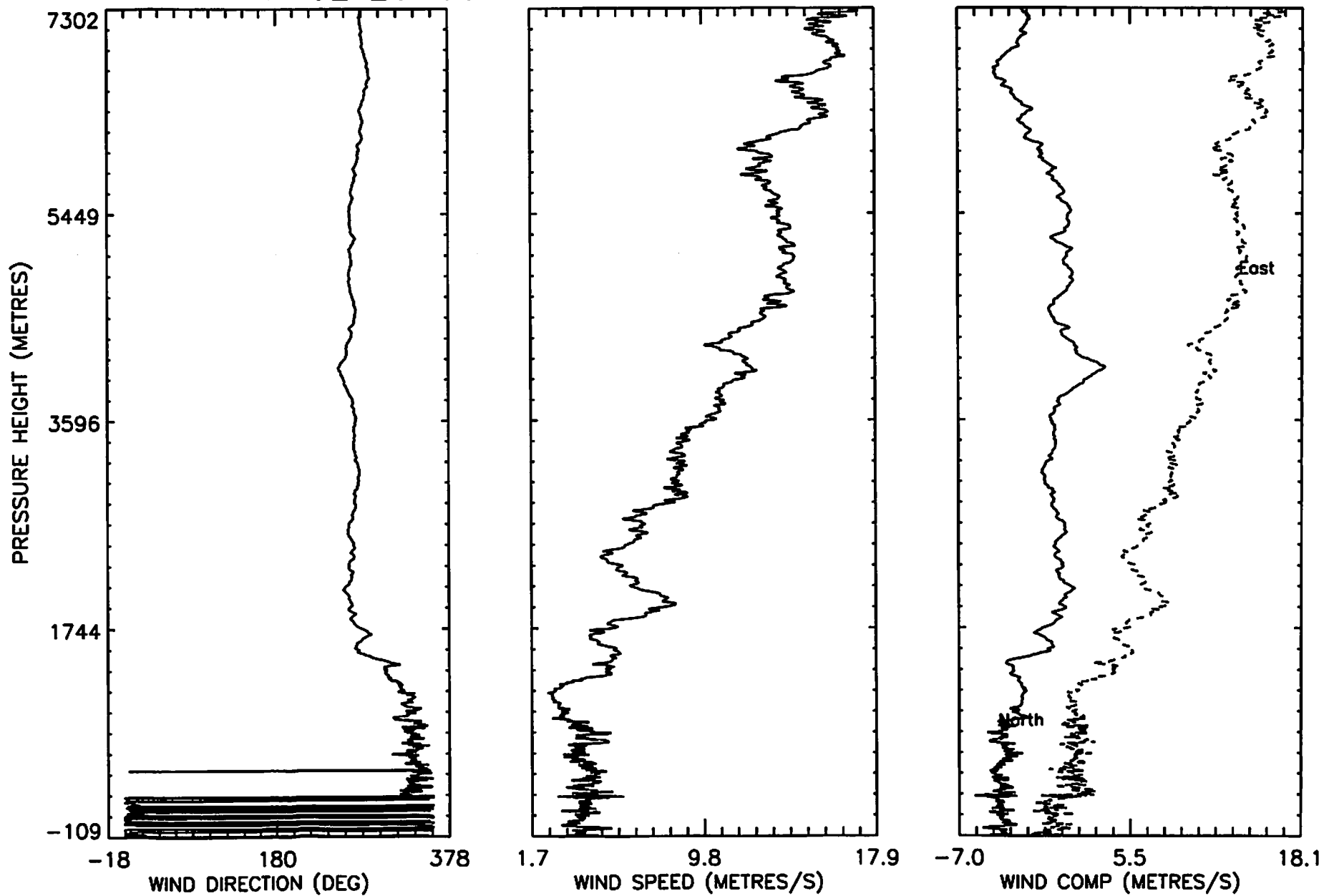
Times 11:07:28-11:36:30 GMT



1 second averages

A462 26-JUN-96 Profile P1

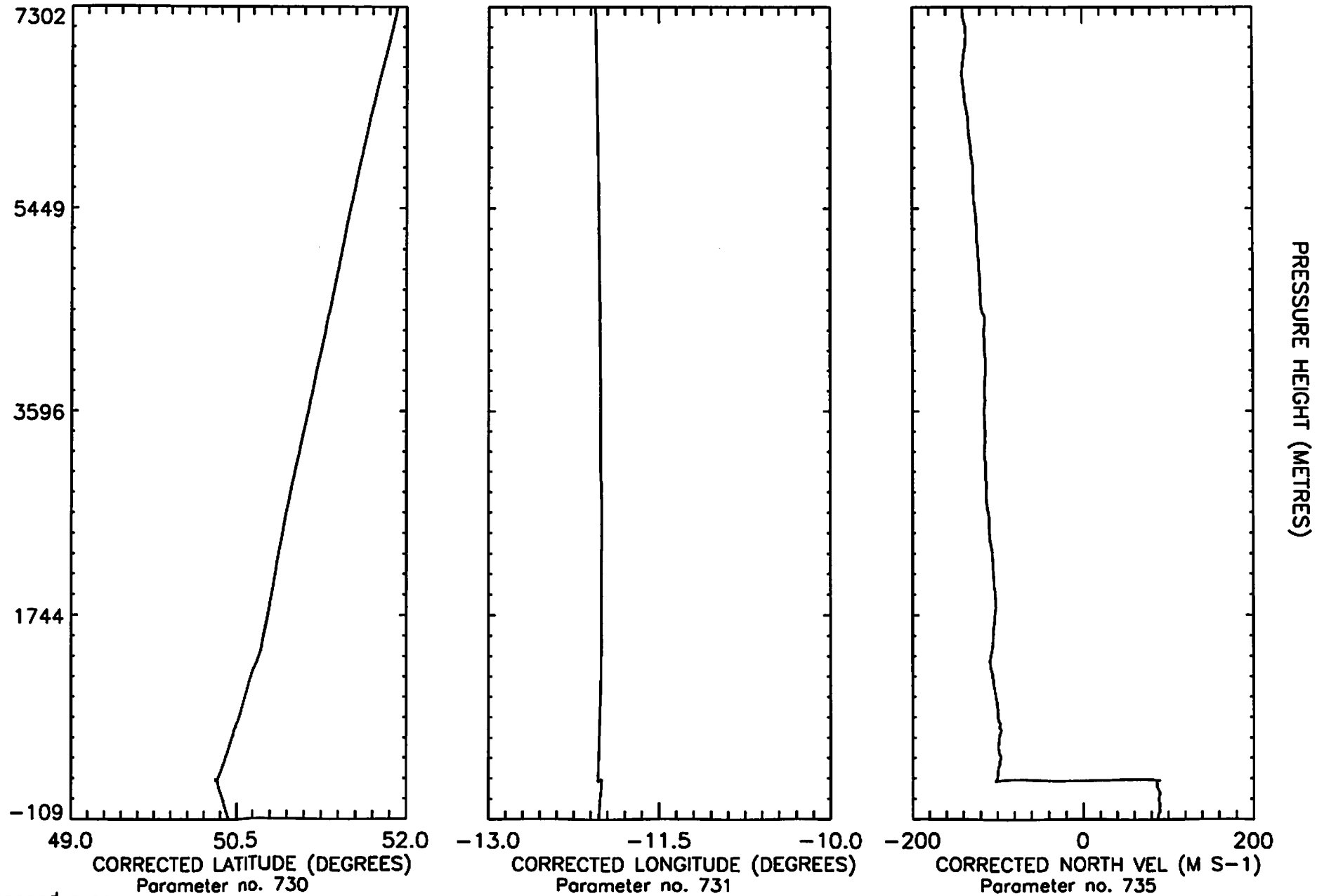
Times 11:07:28-11:36:30 GMT





A462 26-JUN-96 Profile P1

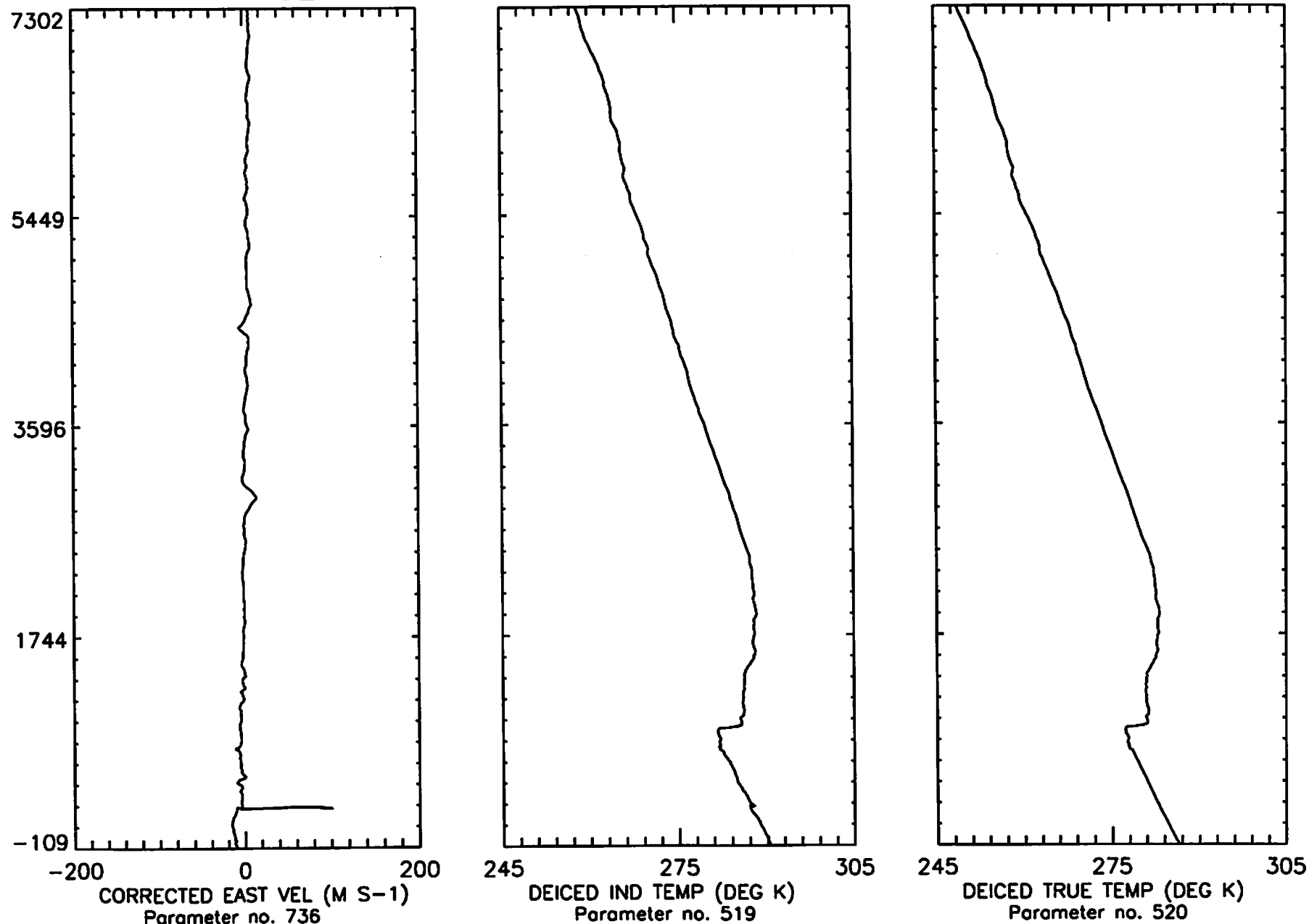
Times 11:07:28-11:36:30 GMT



1 second averages

A462 26-JUN-96 Profile P1

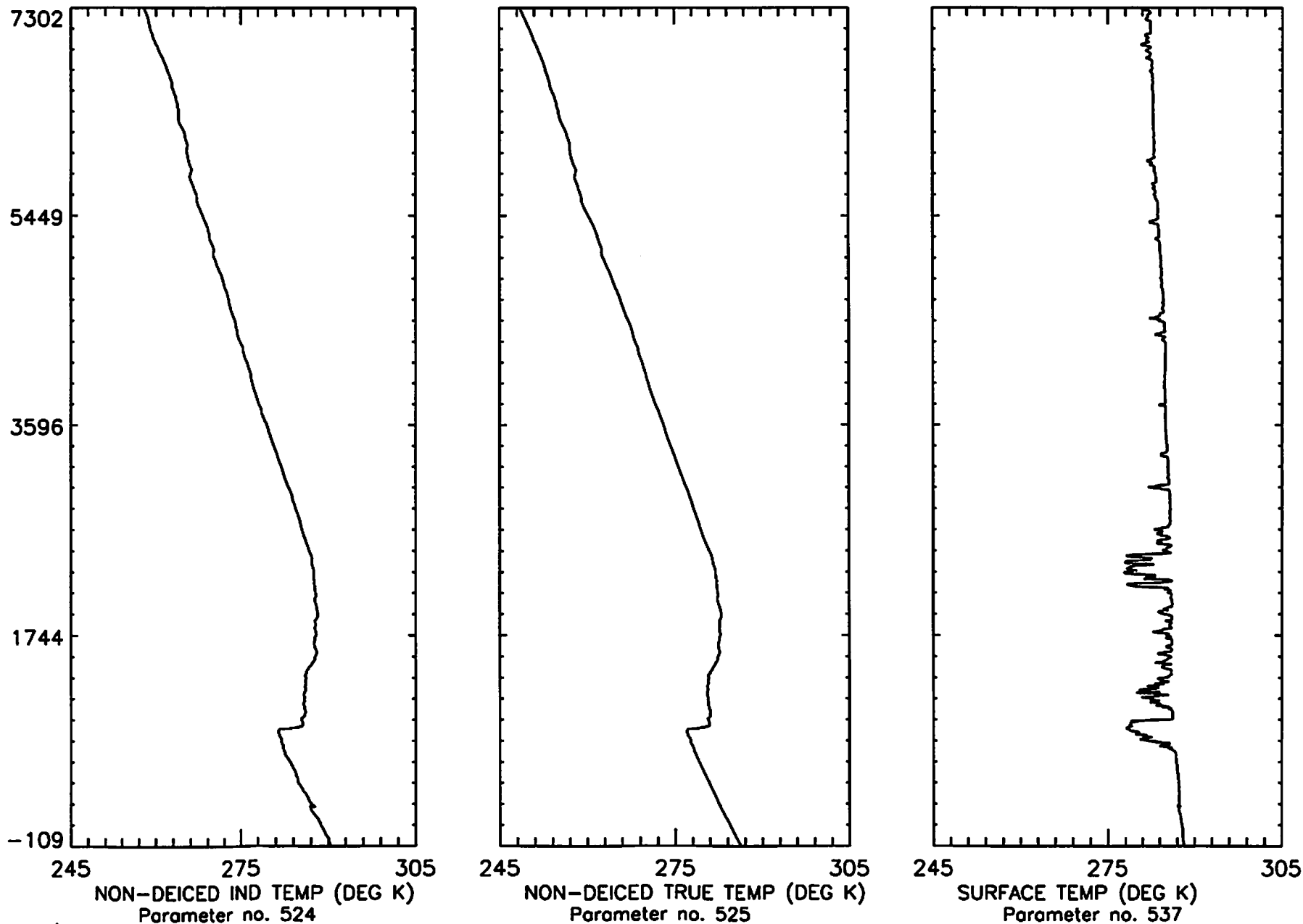
Times 11:07:28-11:36:30 GMT



PRESSURE HEIGHT (METRES)

A462 26-JUN-96 Profile P1

Times 11:07:28-11:36:30 GMT

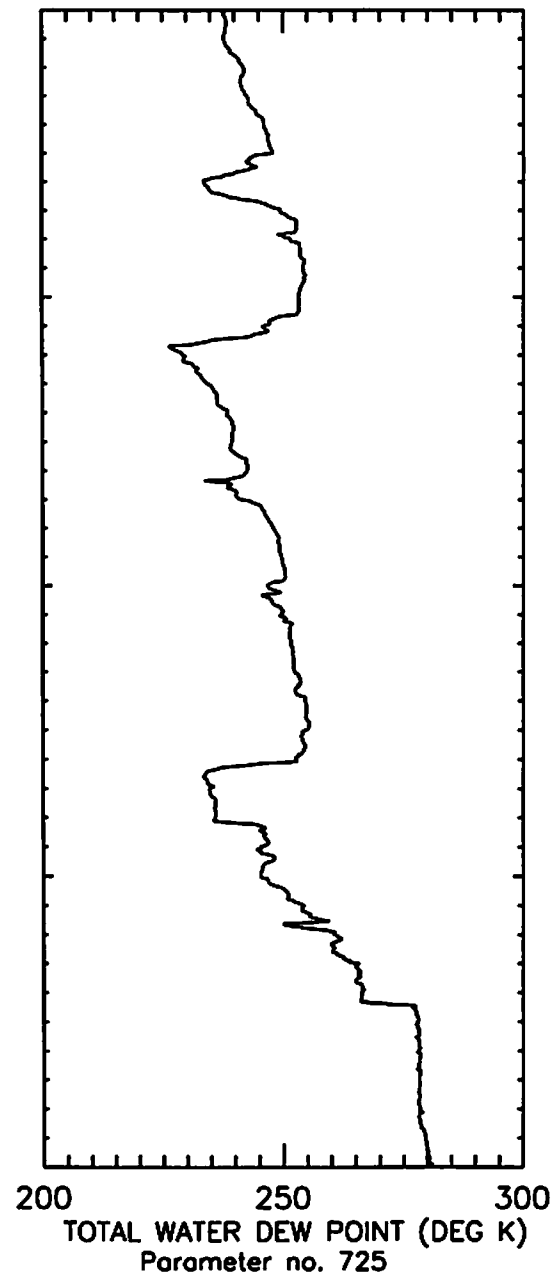
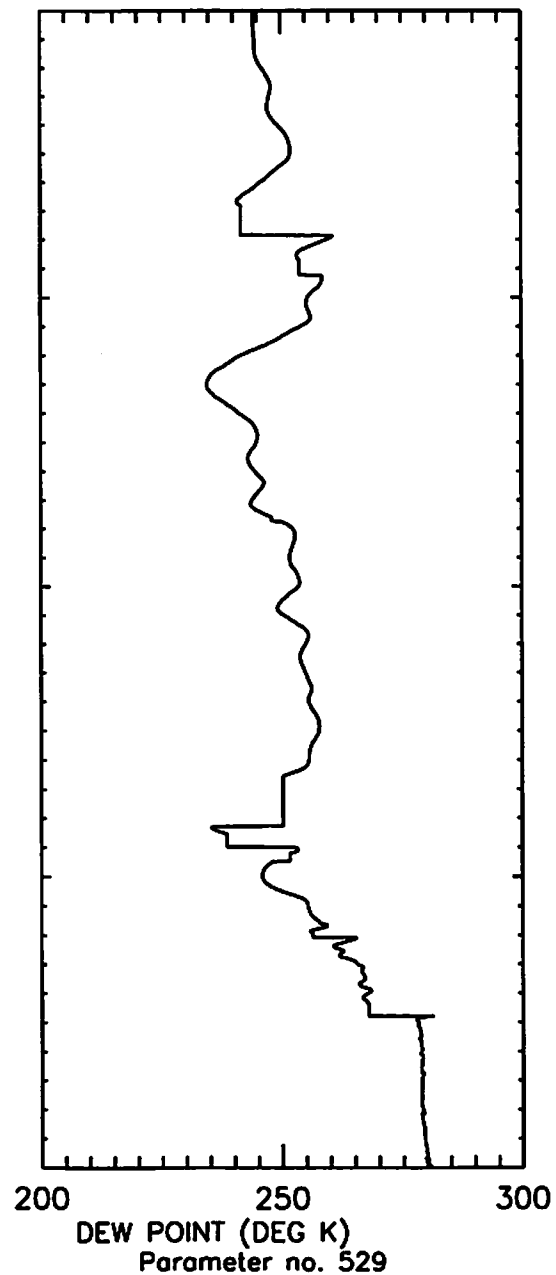
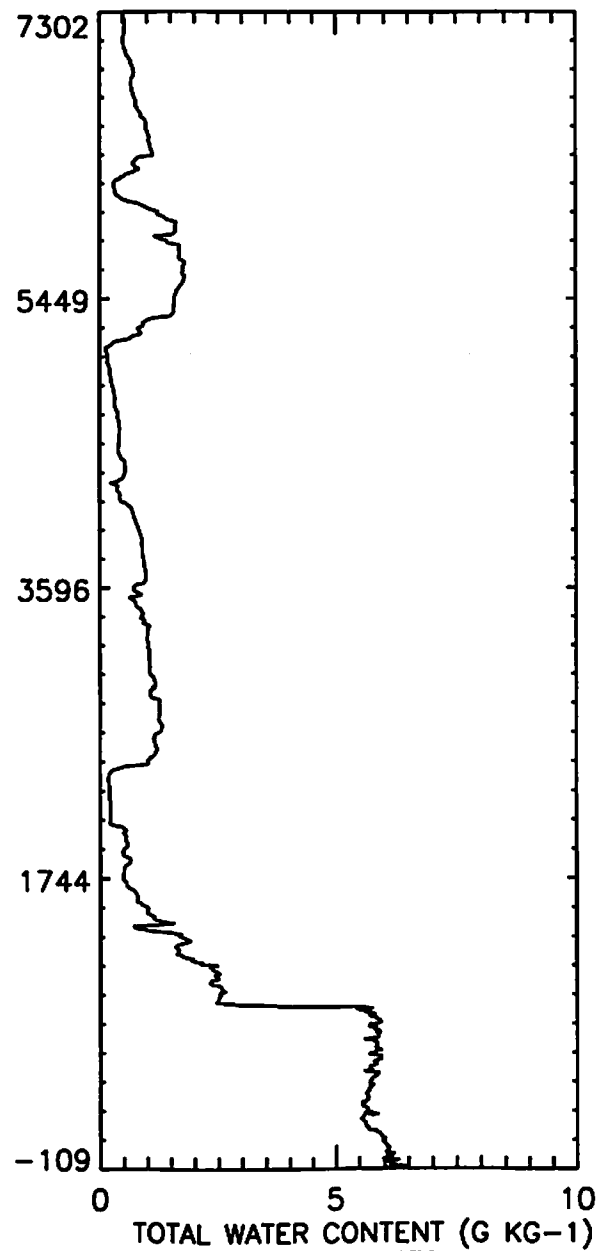


PRESSURE HEIGHT (METRES)

1 second averages

A462 26-JUN-96 Profile P1

Times 11:07:28-11:36:30 GMT

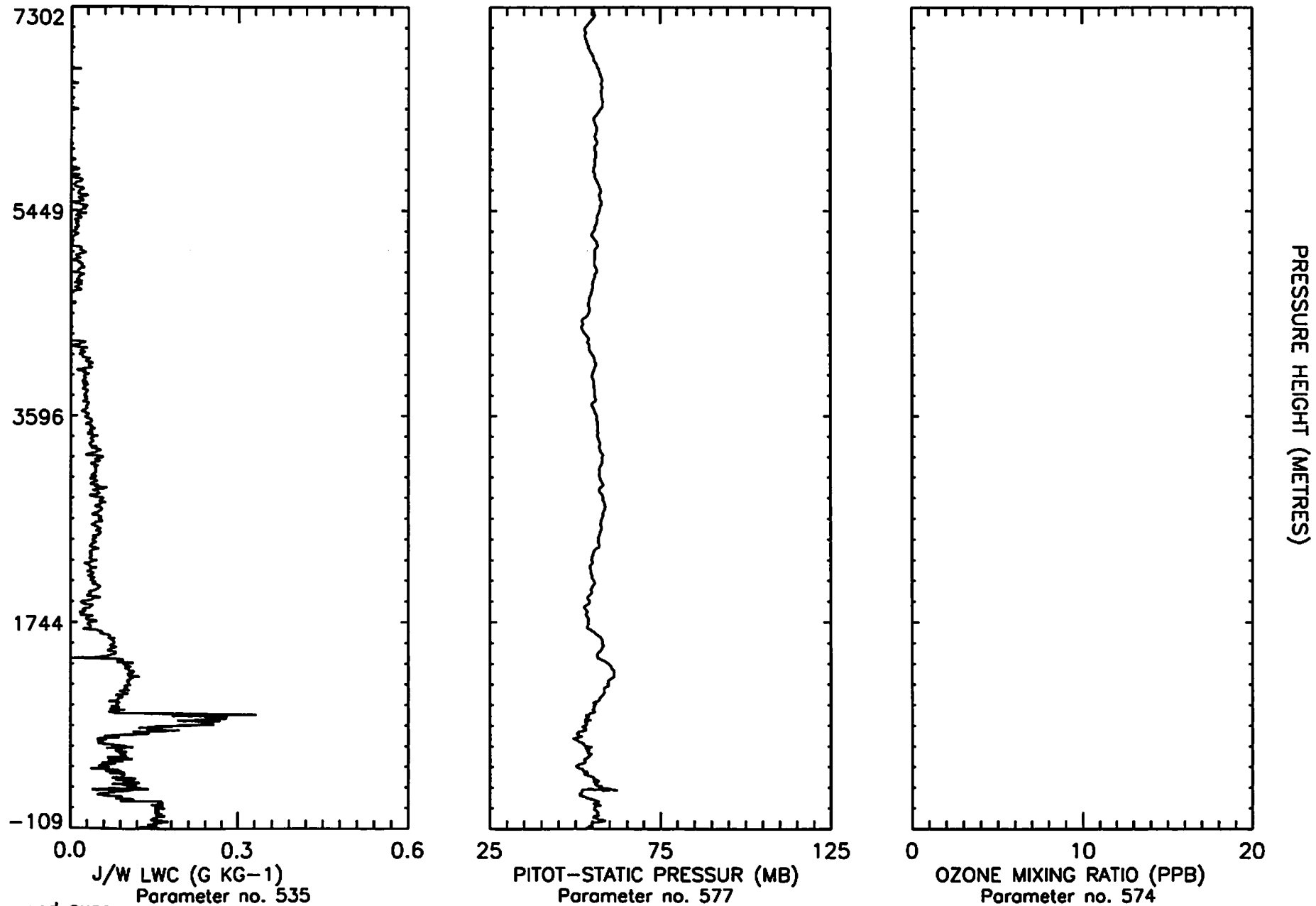


PRESSURE HEIGHT (METRES)

1 second averages

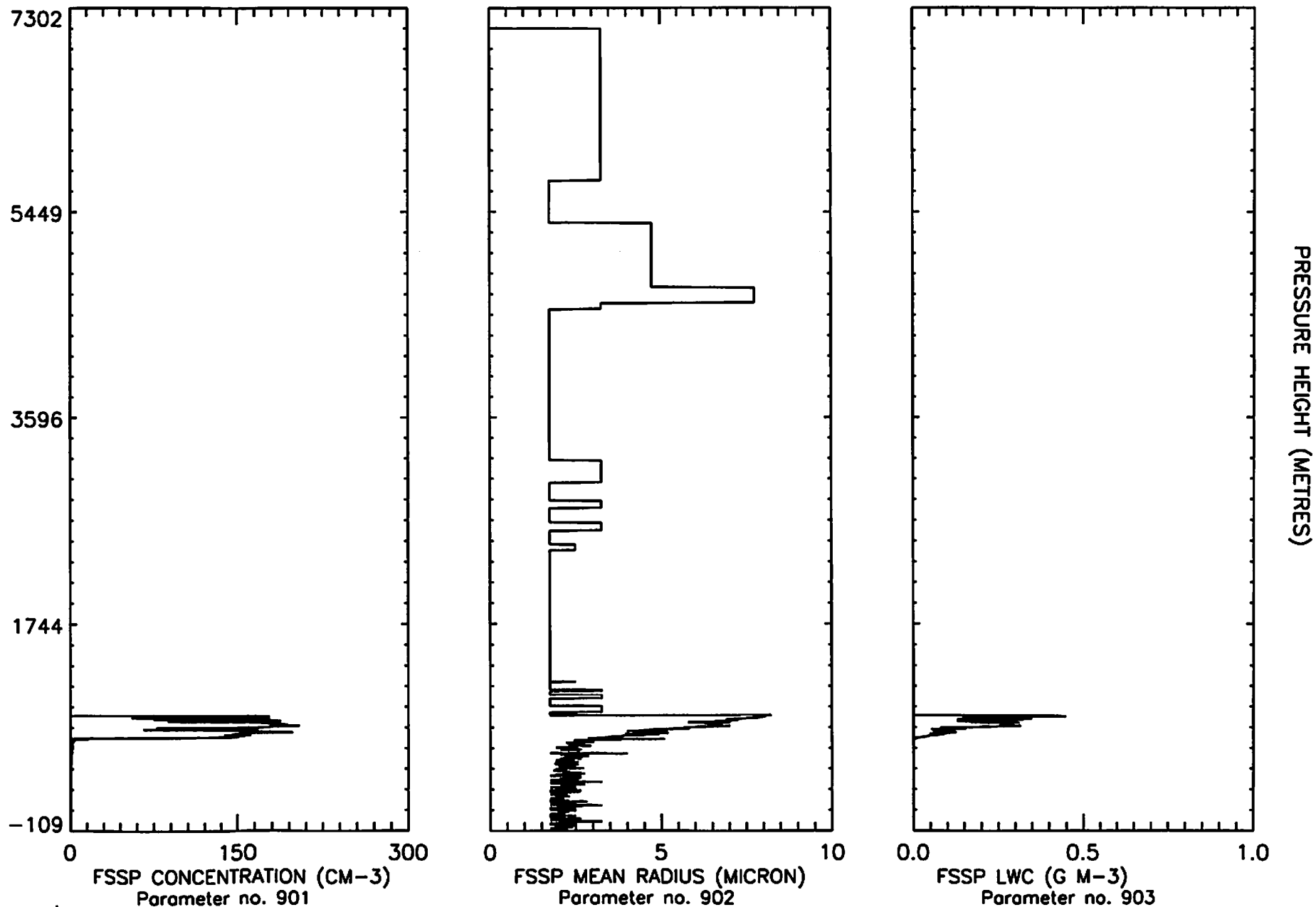
A462 26-JUN-96 Profile P1

Times 11:07:28-11:36:30 GMT



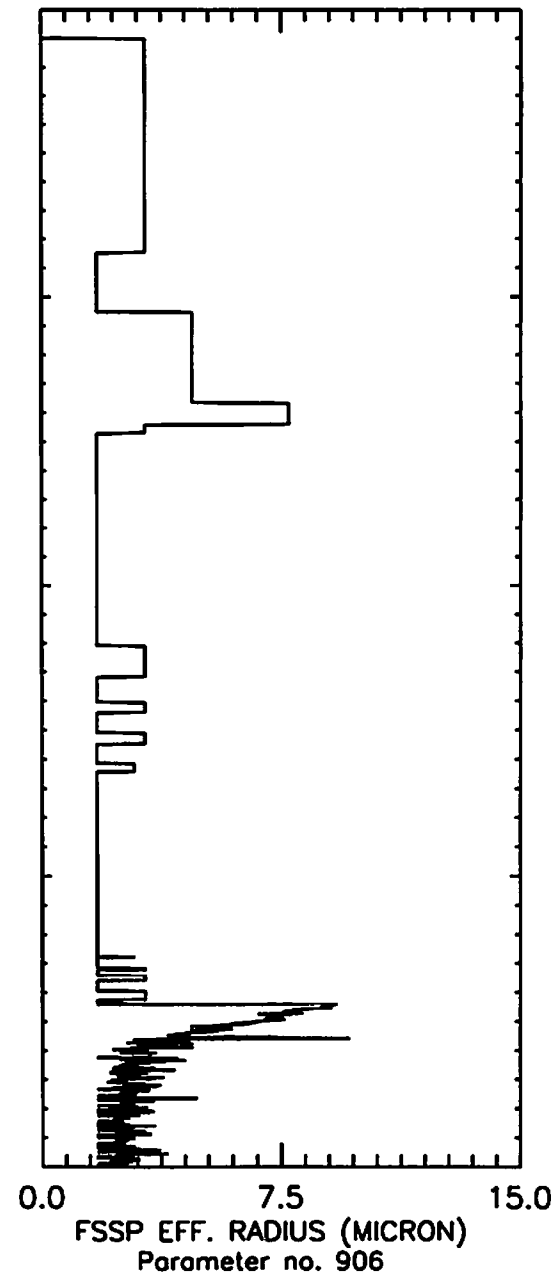
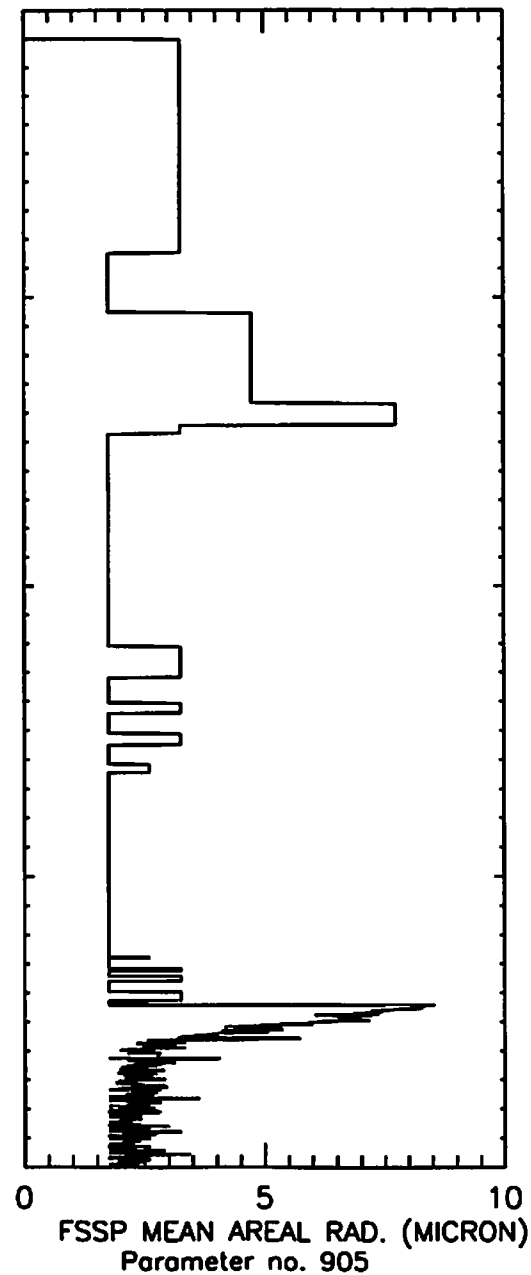
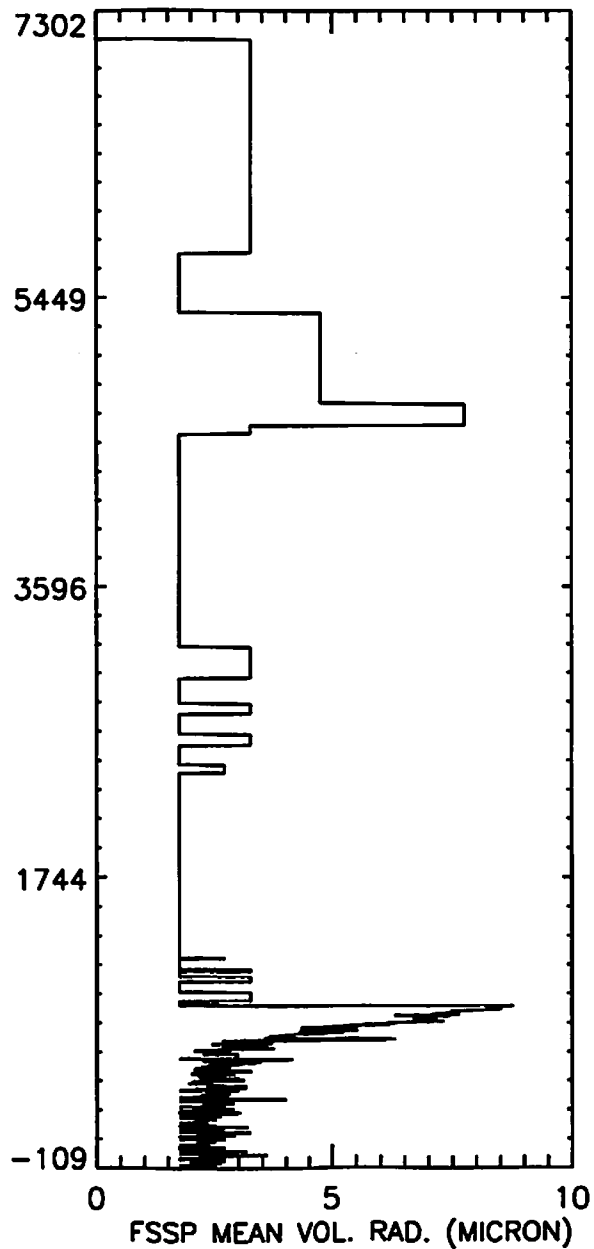
A462 26-JUN-96 Profile P1

Times 11:07:28-11:36:30 GMT



A462 26-JUN-96 Profile P1

Times 11:07:28-11:36:30 GMT

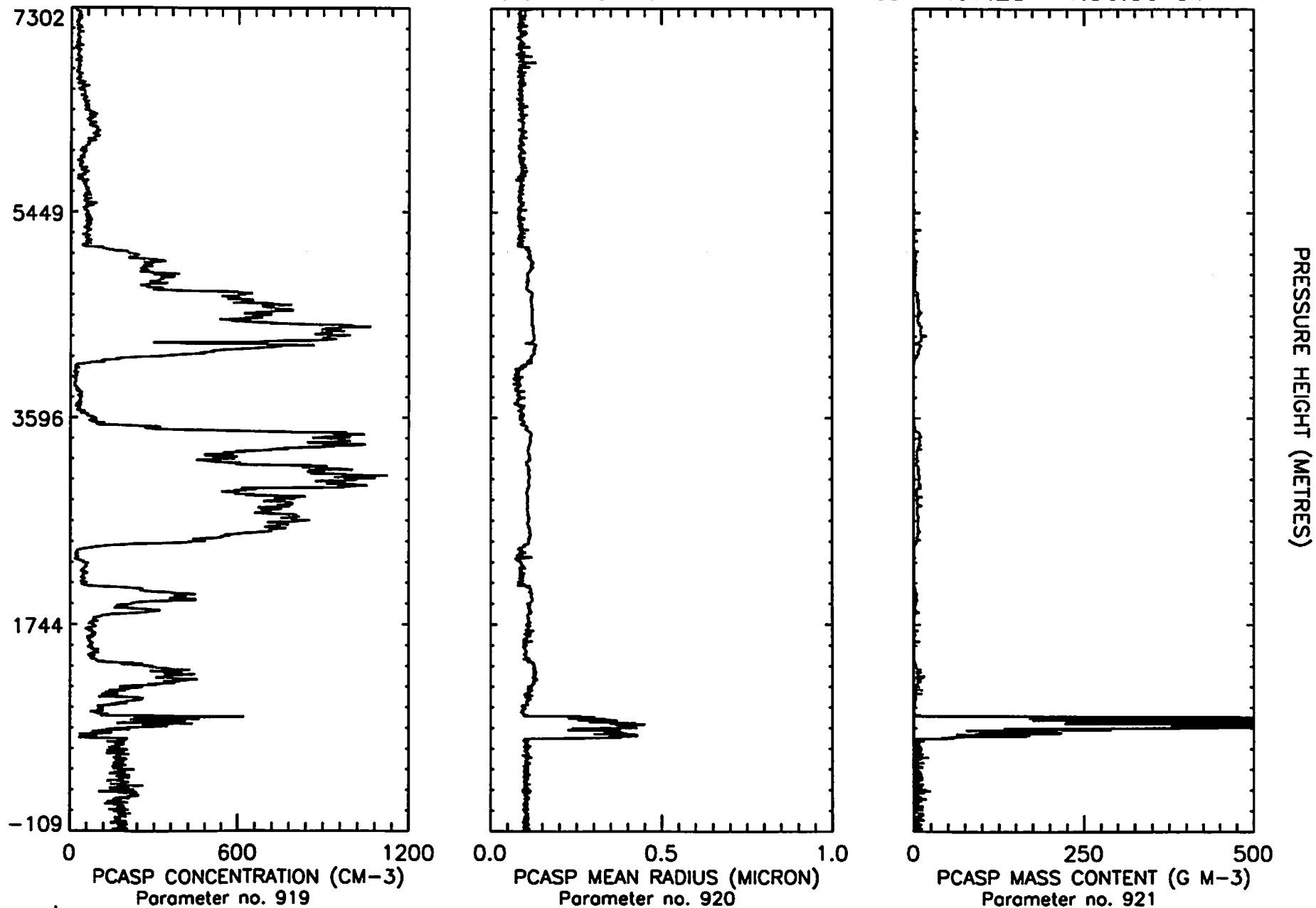


PRESSURE HEIGHT (METRES)

1 second averages

A462 26-JUN-96 Profile P1

Times 11:07:28-11:36:30 GMT



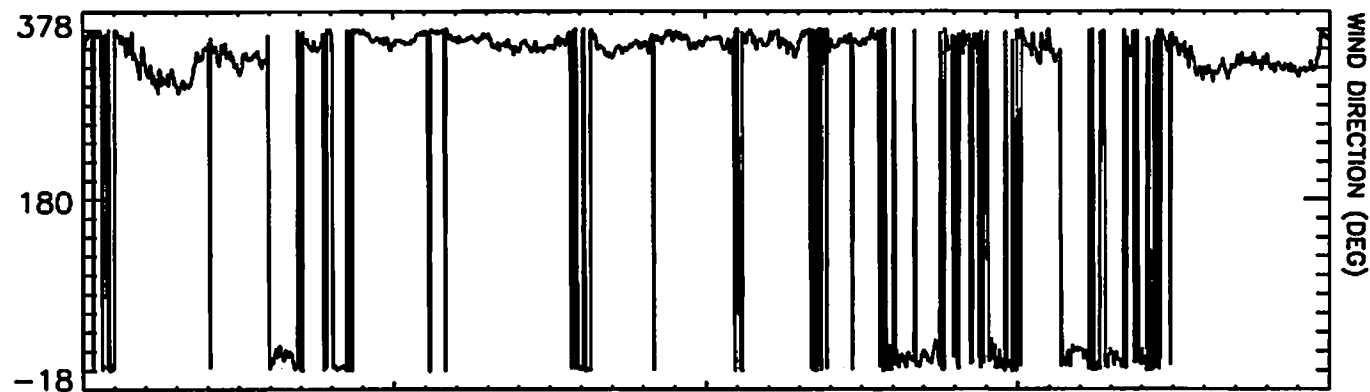


A462 26-JUN-96

Run no. R3

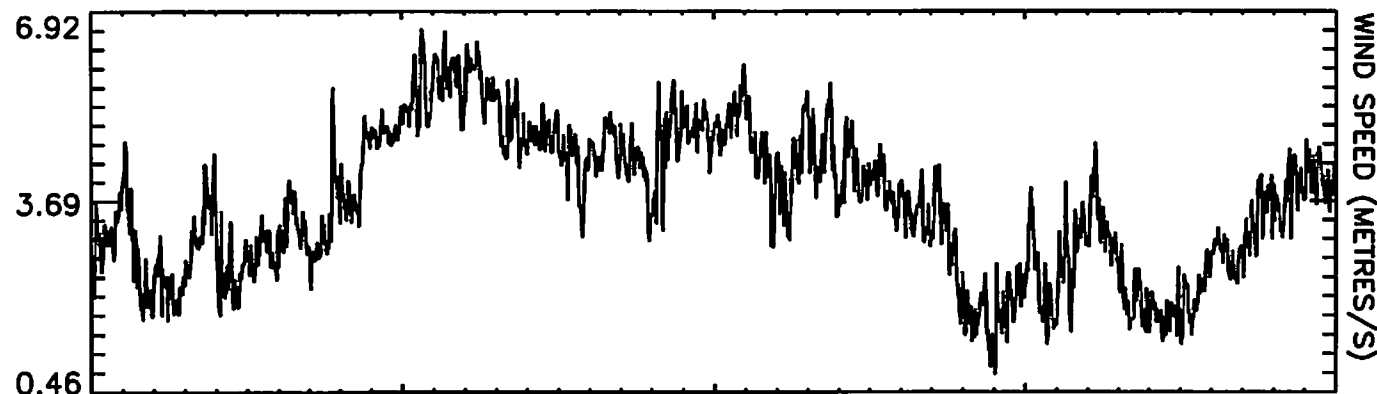
WIND DIRECTION (DEG)

No. of obs 1453  
Mean 266.755  
Standard dev 137.285  
Max value 359.994  
Min value 0.122260



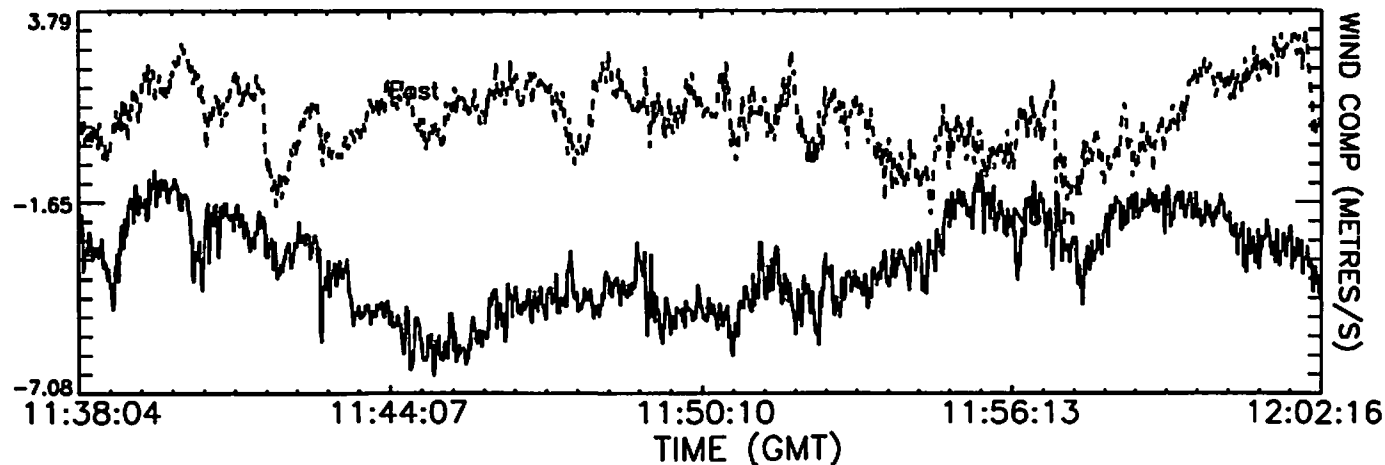
WIND SPEED (METRES/S)

No. of obs 1453  
Mean 3.66803  
Standard dev 1.22460  
Max value 6.62654  
Min value 0.752584



WIND COMP (METRES/s)

Parameter no. 714,715  
No. of obs 1453  
Mean north -3.42166  
Stan dev north 1.29642  
Max north -0.724825  
Min north -6.58929  
Mean east -3.42166  
Stan dev east 1.29642  
Max east -0.724825  
Min east -6.58929



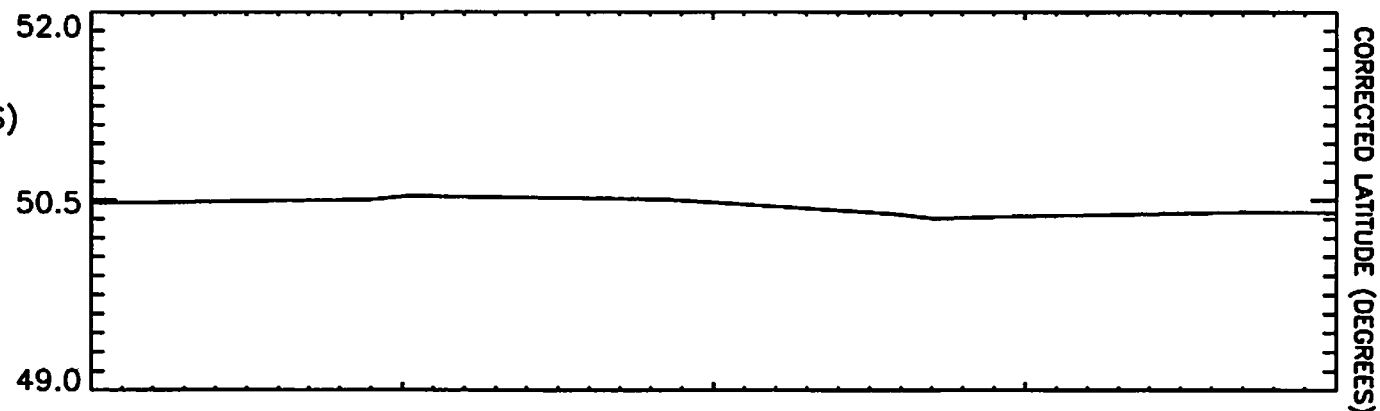
1 second averages

A462 26-JUN-96

Run no. R3

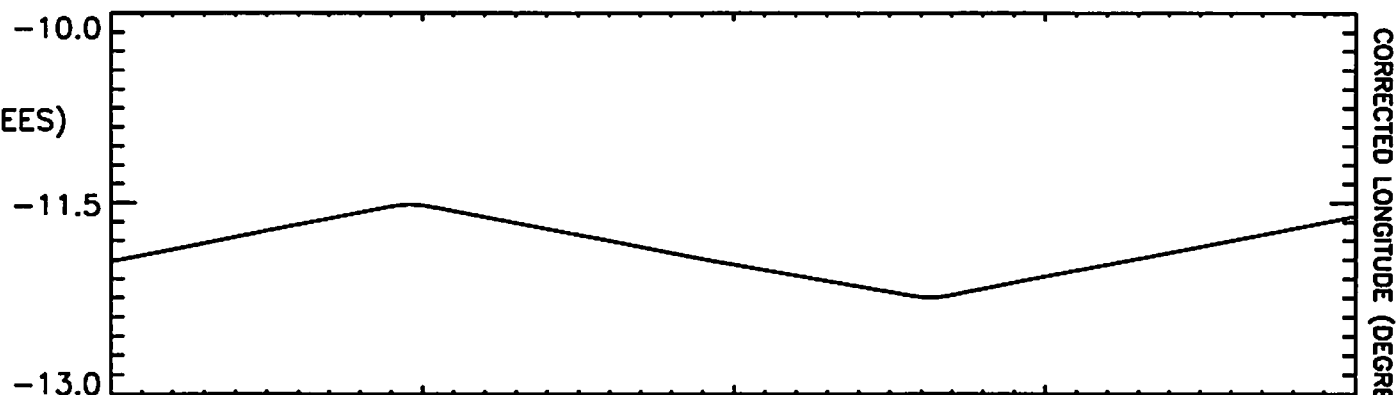
CORRECTED LATITUDE (DEGREES)

Parameter no. 730  
No. of obs 1453  
Mean 50.4504  
Standard dev 5.820254e-02  
Max value 50.5320  
Min value 50.3540



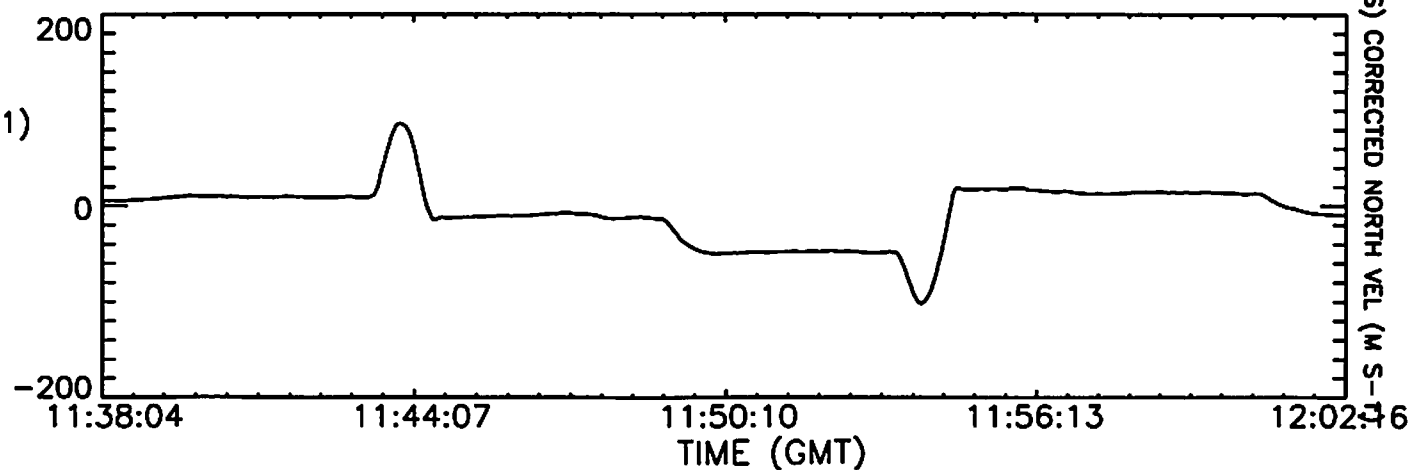
CORRECTED LONGITUDE (DEGREES)

Parameter no. 731  
No. of obs 1453  
Mean -11.8673  
Standard dev 0.206206  
Max value -11.5165  
Min value -12.2471



CORRECTED NORTH VEL (M S-1)

Parameter no. 735  
No. of obs 1453  
Mean -5.94034  
Standard dev 29.4077  
Max value 86.0926  
Min value -101.545



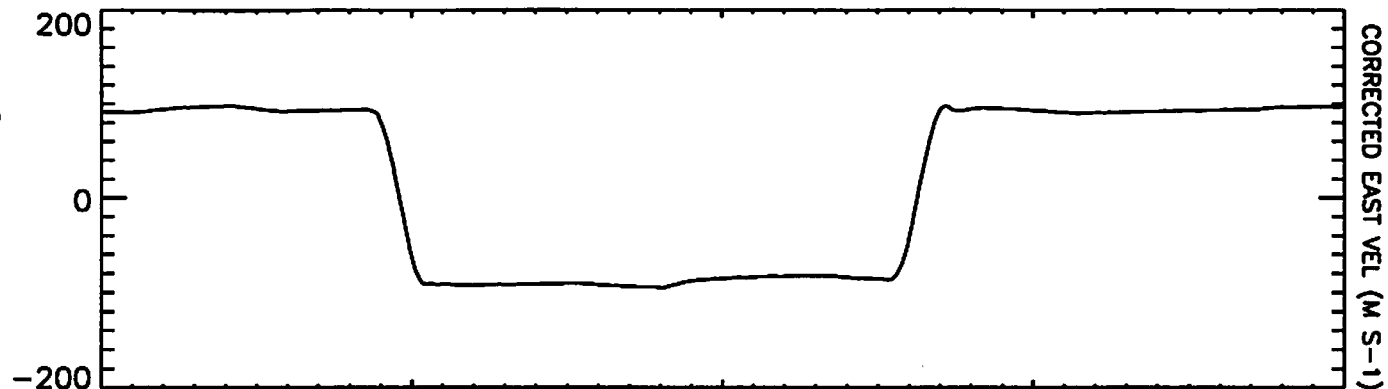
1 second averages

A462 26-JUN-96

Run no. R3

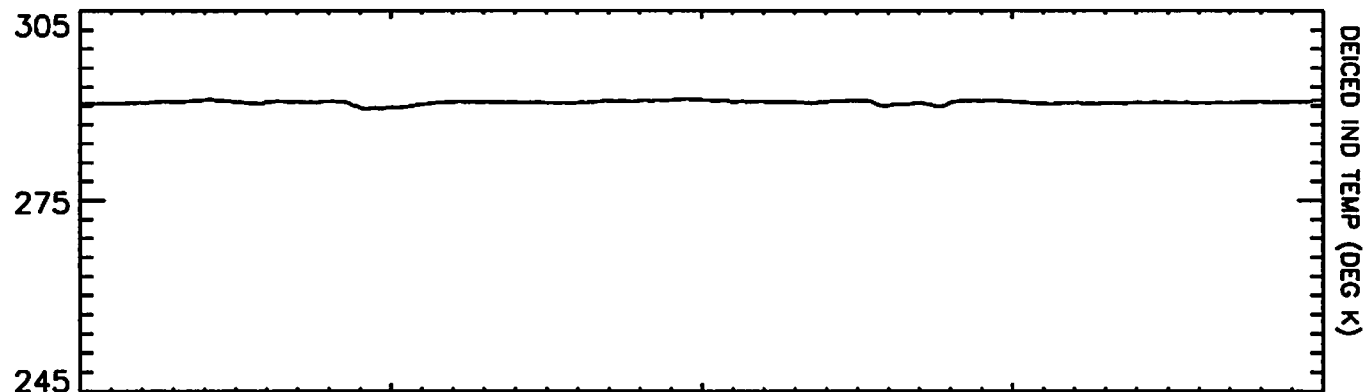
CORRECTED EAST VEL (M S-1)

Parameter no. 736  
No. of obs 1453  
Mean 17.5783  
Standard dev 87.9626  
Max value 98.1931  
Min value -95.0343



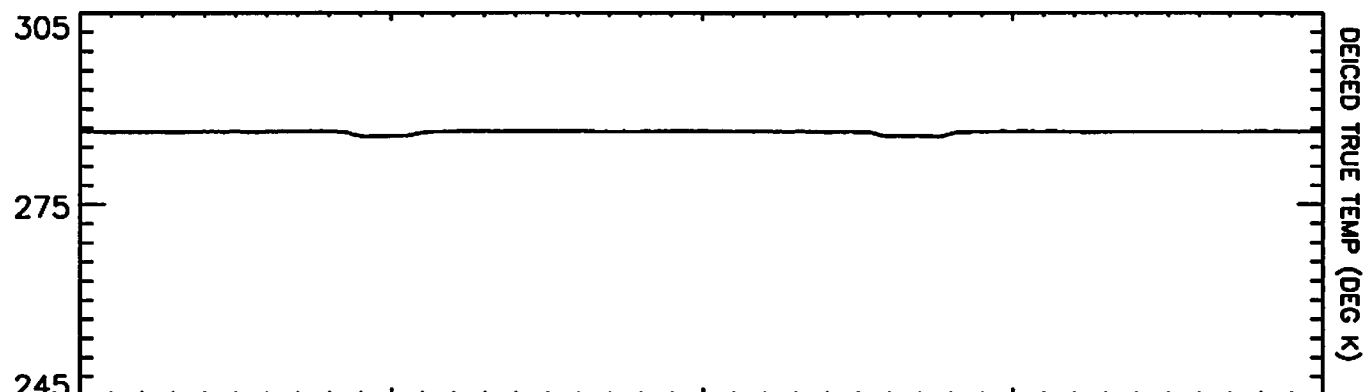
DEICED IND TEMP (DEG K)

Parameter no. 519  
No. of obs 1453  
Mean 290.532  
Standard dev 0.270267  
Max value 291.069  
Min value 289.526



DEICED TRUE TEMP (DEG K)

Parameter no. 520  
No. of obs 1453  
Mean 286.329  
Standard dev 0.218241  
Max value 286.545  
Min value 285.591



11:38:04 11:44:07 11:50:10 11:56:13 12:02:16  
TIME (GMT)

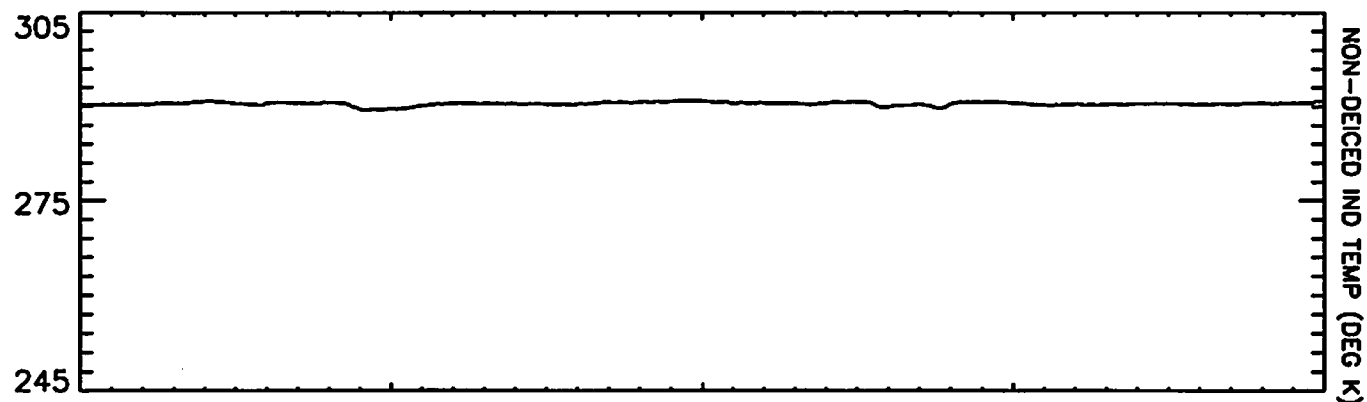
1 second overages

A462 26-JUN-96

Run no. R3

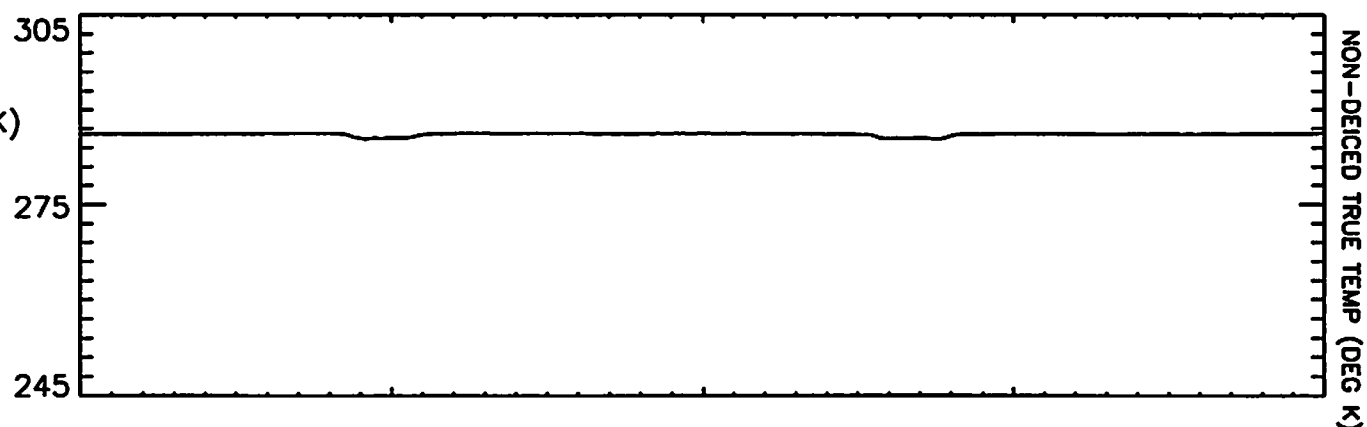
NON-DEICED IND TEMP (DEG K)

Parameter no. 524  
No. of obs 1453  
Mean 290.440  
Standard dev 0.275107  
Max value 290.981  
Min value 289.398



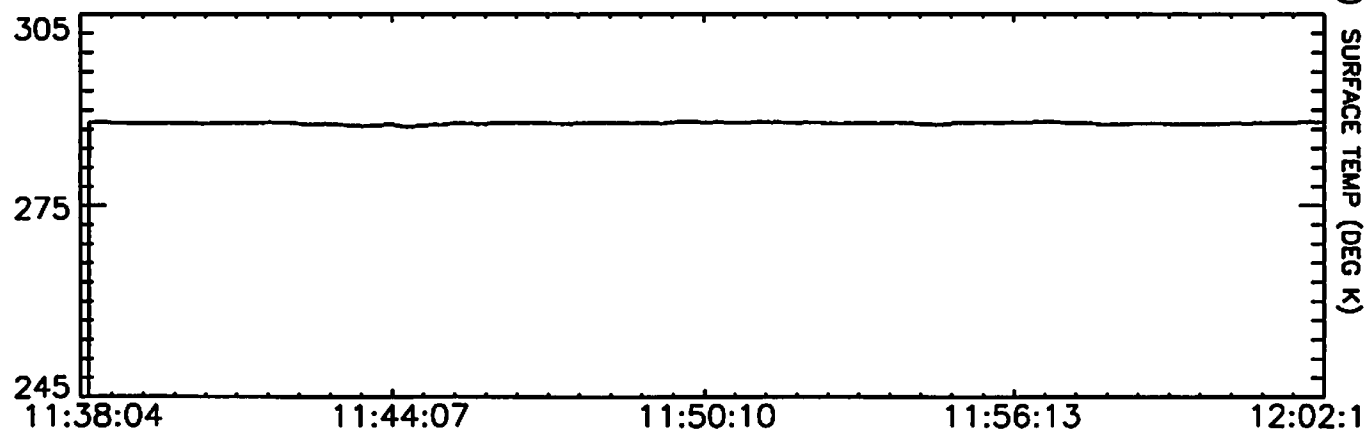
NON-DEICED TRUE TEMP (DEG K)

Parameter no. 525  
No. of obs 1453  
Mean 286.113  
Standard dev 0.222221  
Max value 286.337  
Min value 285.354



SURFACE TEMP (DEG K)

Parameter no. 537  
No. of obs 1453  
Mean 285.936  
Standard dev 23.8118  
Max value 288.244  
Min value 0.000000



1 second averages

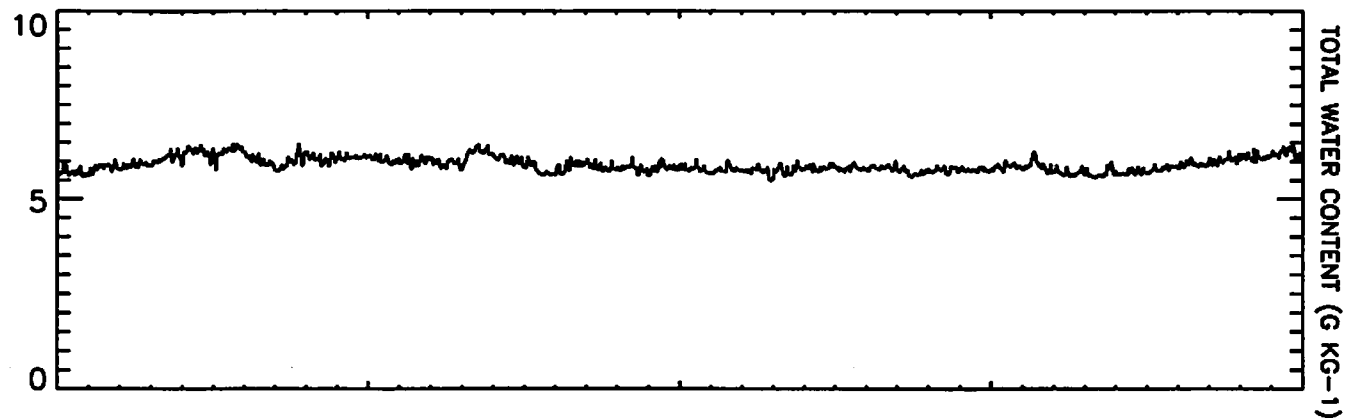
TIME (GMT)

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Run no. R3

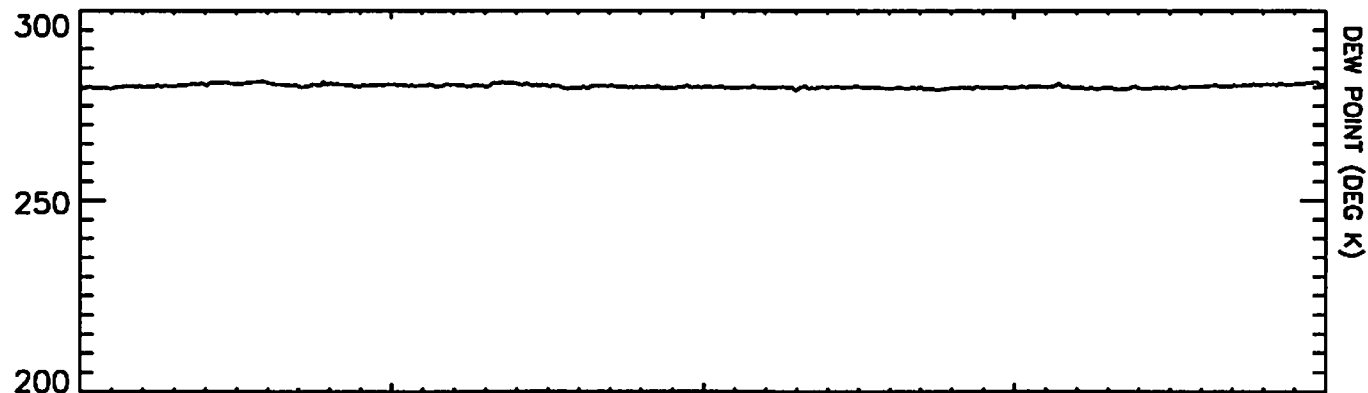
TOTAL WATER CONTENT (G KG-1)

Parameter no. 572  
No. of obs 1453  
Mean 5.90432  
Standard dev 0.191517  
Max value 6.48489  
Min value 5.48077



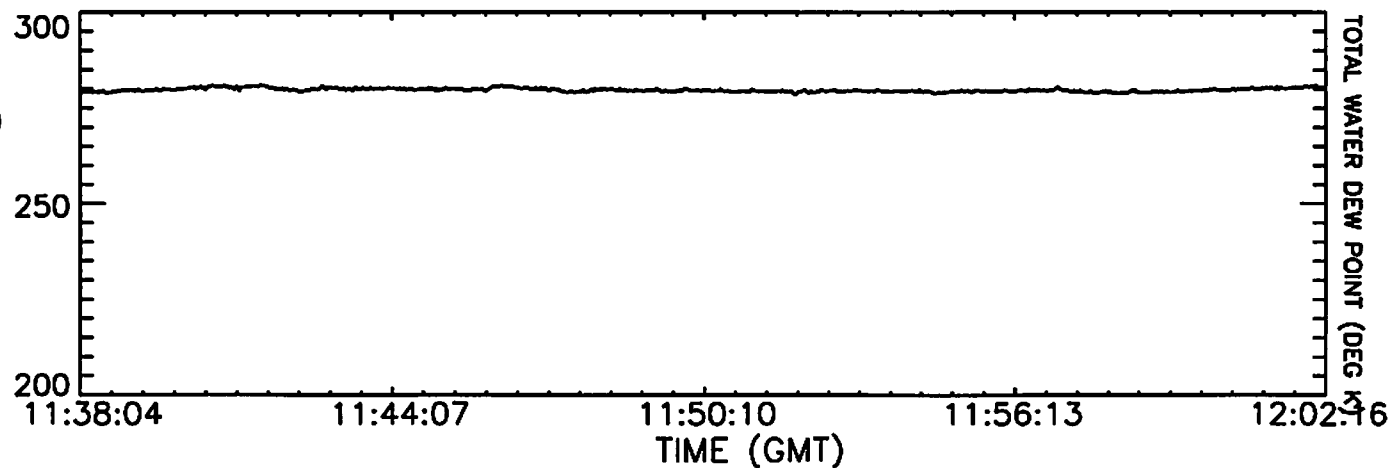
DEW POINT (DEG K)

Parameter no. 529  
No. of obs 1453  
Mean 280.179  
Standard dev 0.455723  
Max value 281.492  
Min value 279.129



TOTAL WATER DEW POINT (DEG K)

Parameter no. 725  
No. of obs 1453  
Mean 279.694  
Standard dev 0.463683  
Max value 281.068  
Min value 278.644



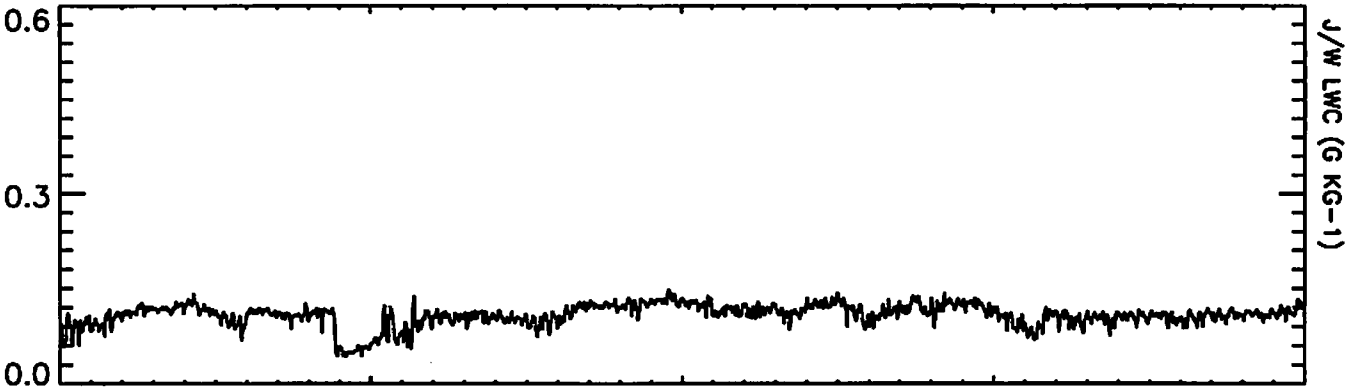
1 second averages

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Run no. R3

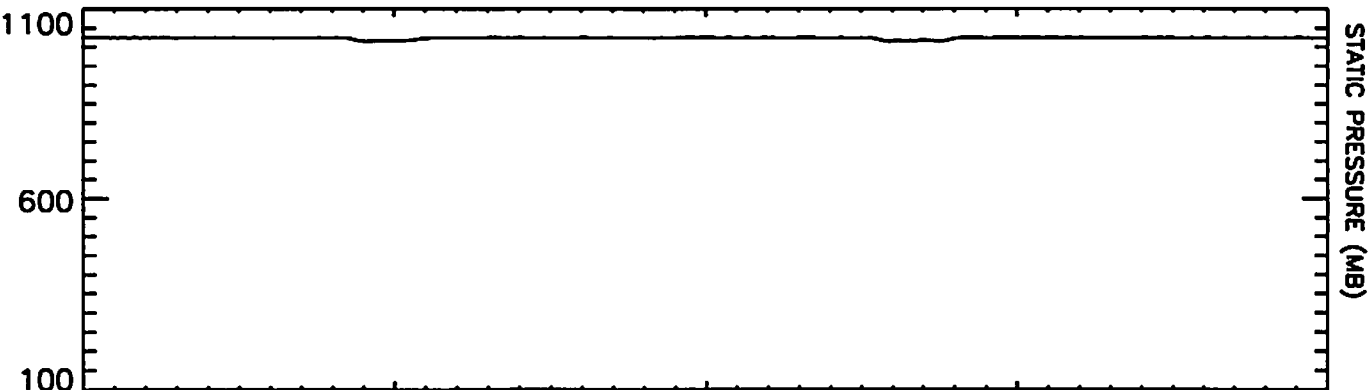
J/W LWC (G KG-1)

Parameter no. 535  
No. of obs 1453  
Mean 0.107749  
Standard dev 1.750168e-02  
Max value 0.148839  
Min value 4.205434e-02



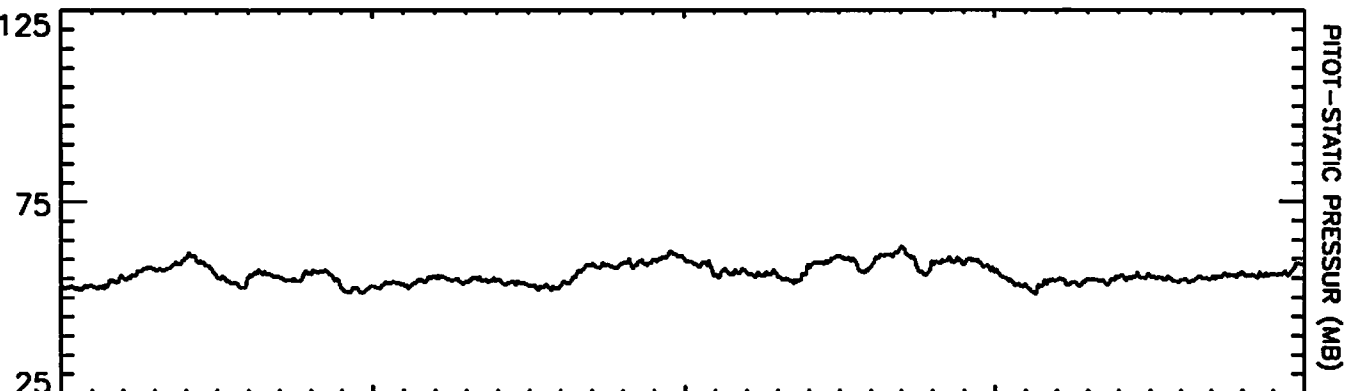
STATIC PRESSURE (MB)

Parameter no. 576  
No. of obs 1453  
Mean 1023.44  
Standard dev 2.46532  
Max value 1025.09  
Min value 1014.43



PITOT-STATIC PRESSUR (MB)

Parameter no. 577  
No. of obs 1453  
Mean 56.0575  
Standard dev 2.51798  
Max value 63.3225  
Min value 50.9284



11:38:04 11:44:07 11:50:10 11:56:13 12:02:16  
TIME (GMT)

1 second averages

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Run no. R3

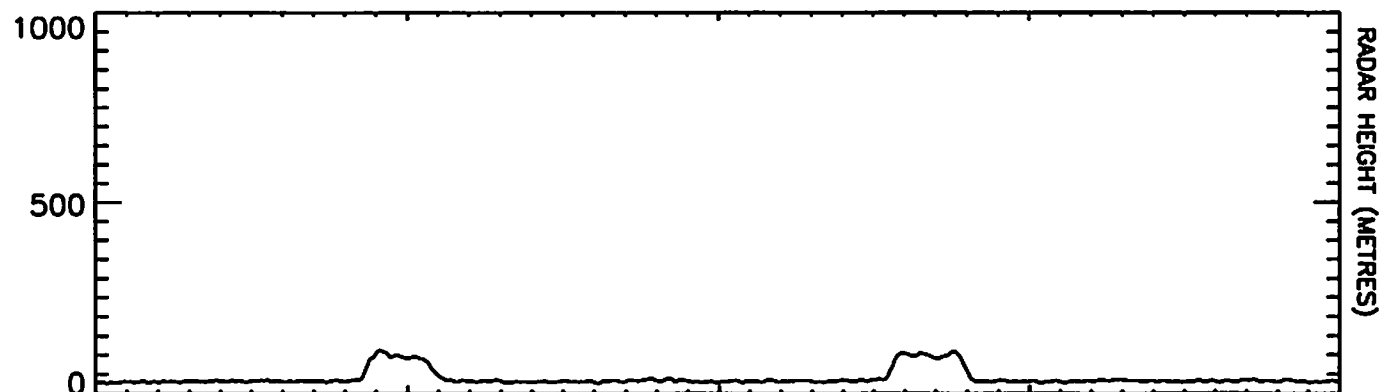
PRESSURE HEIGHT (METRES)

Parameter no. 578  
No. of obs 1453  
Mean -84.4475  
Standard dev 20.4039  
Max value -9.81985  
Min value -98.1287



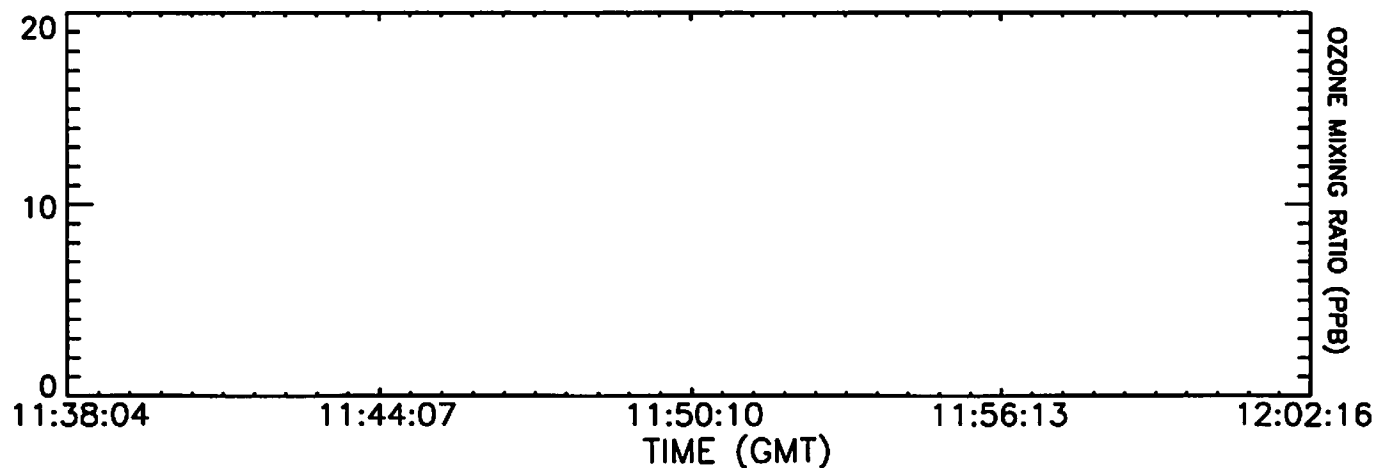
RADAR HEIGHT (METRES)

Parameter no. 575  
No. of obs 1453  
Mean 39.1926  
Standard dev 20.6261  
Max value 112.275  
Min value 25.1099



OZONE MIXING RATIO (PPB)

Parameter no. 574  
No. of obs 1453  
Mean 0.000000  
Standard dev 0.000000  
Max value 0.000000  
Min value 0.000000



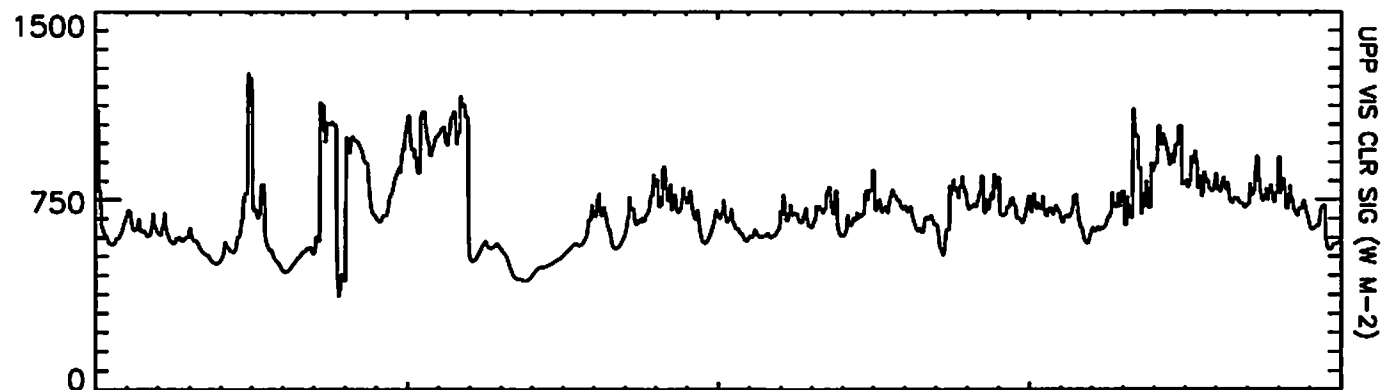
1 second averages

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Run no. R3

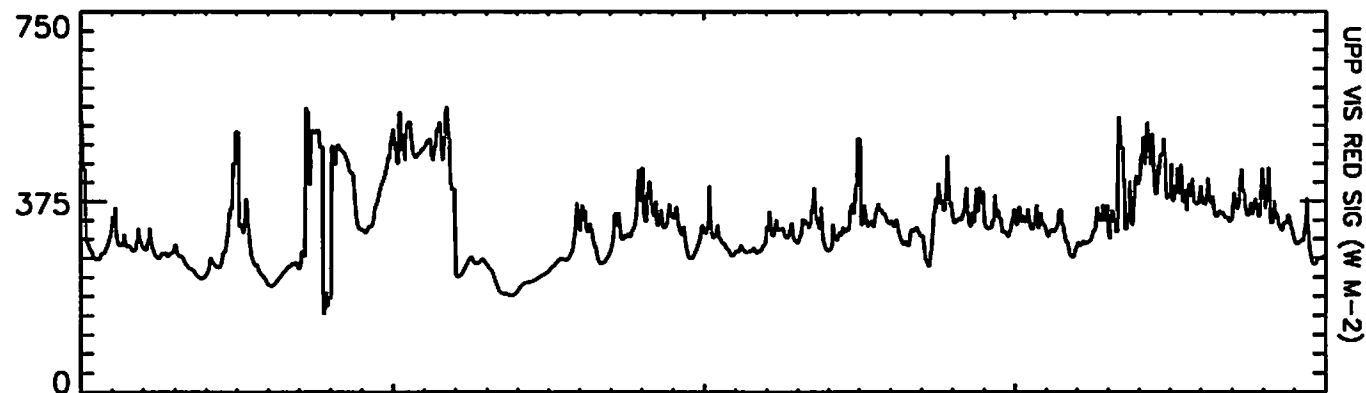
UPP VIS CLR SIG (W M-2)

Parameter no. 673  
No. of obs 1453  
Mean 703.212  
Standard dev 151.084  
Max value 1255.45  
Min value 365.535



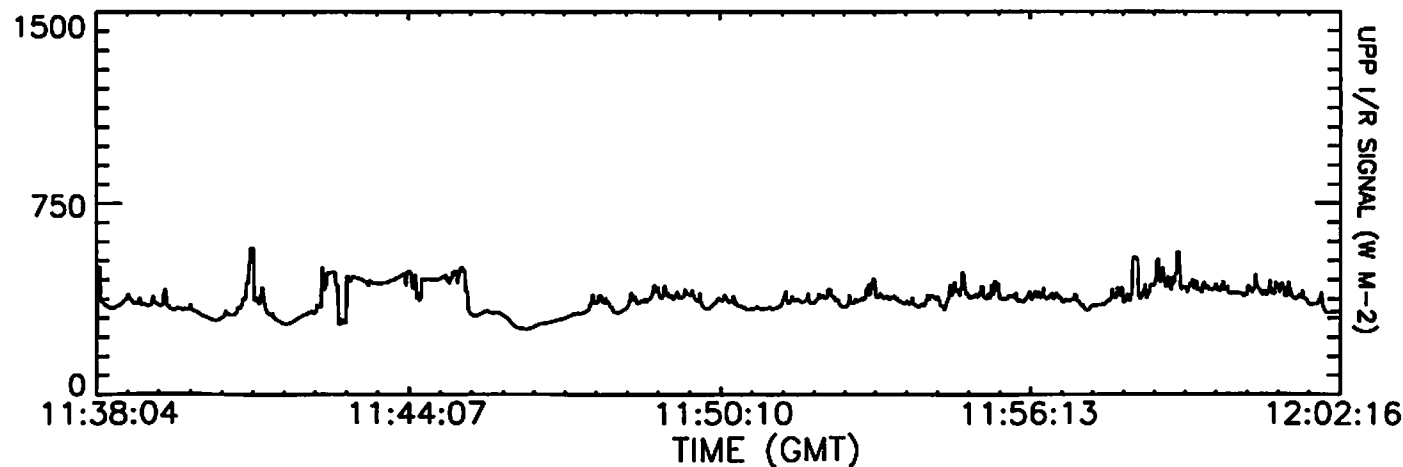
UPP VIS RED SIG (W M-2)

Parameter no. 674  
No. of obs 1453  
Mean 328.066  
Standard dev 77.3378  
Max value 563.329  
Min value 153.153



UPP I/R SIGNAL (W M-2)

Parameter no. 675  
No. of obs 1453  
Mean 373.530  
Standard dev 53.9260  
Max value 576.098  
Min value 0.000000



1 second averages

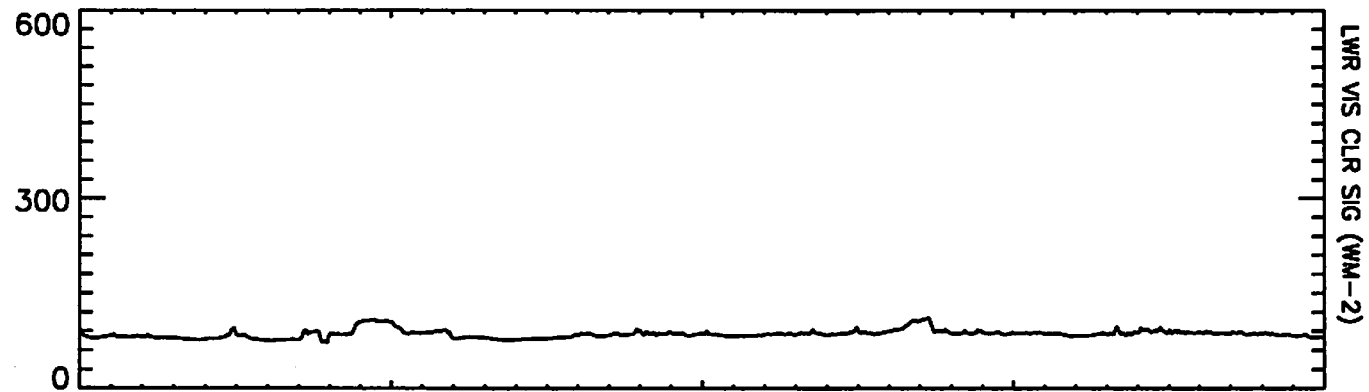


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Run no. R3

LWR VIS CLR SIG (WM-2)

Parameter no. 682  
No. of obs 1453  
Mean 85.4803  
Standard dev 6.43666  
Max value 110.887  
Min value 71.3710



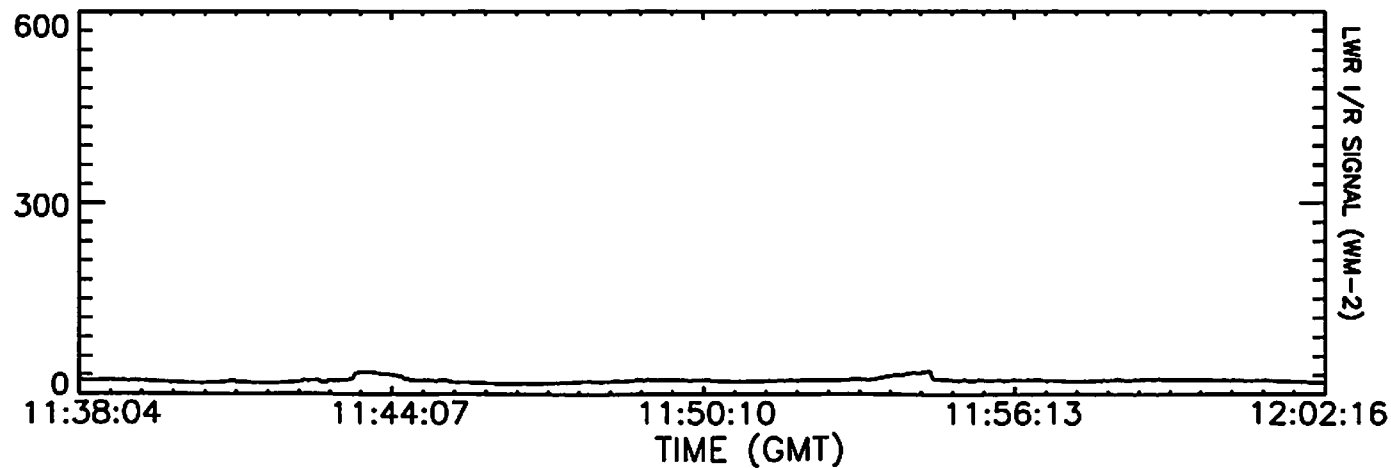
LWR VIS RED SIG (WM-2)

Parameter no. 683  
No. of obs 1453  
Mean 44.7047  
Standard dev 3.35801  
Max value 58.5576  
Min value 37.8451



LWR I/R SIGNAL (WM-2)

Parameter no. 684  
No. of obs 1453  
Mean 21.7563  
Standard dev 3.66620  
Max value 36.7697  
Min value 16.0715



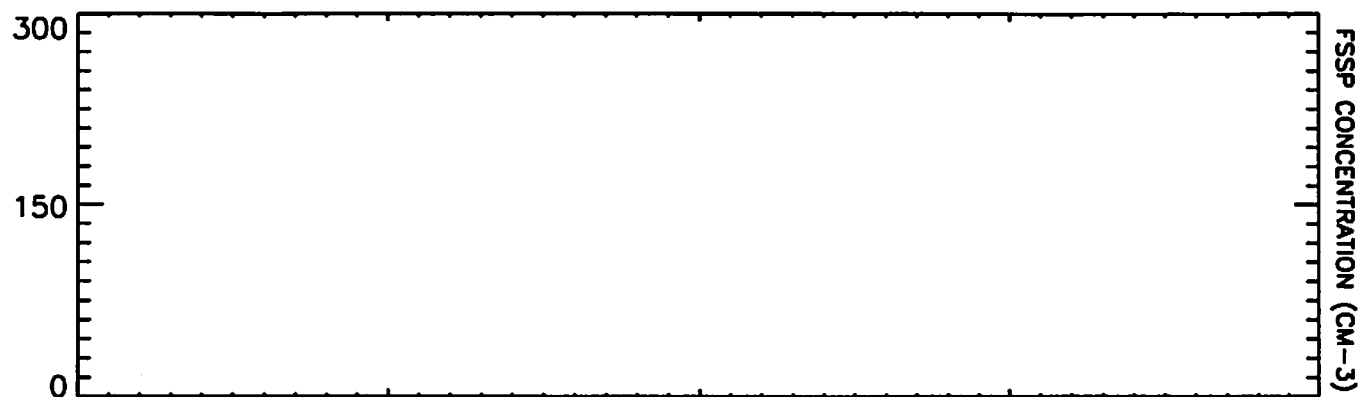
1 second averages

A4b2 26-JUN-96

Run no. R3

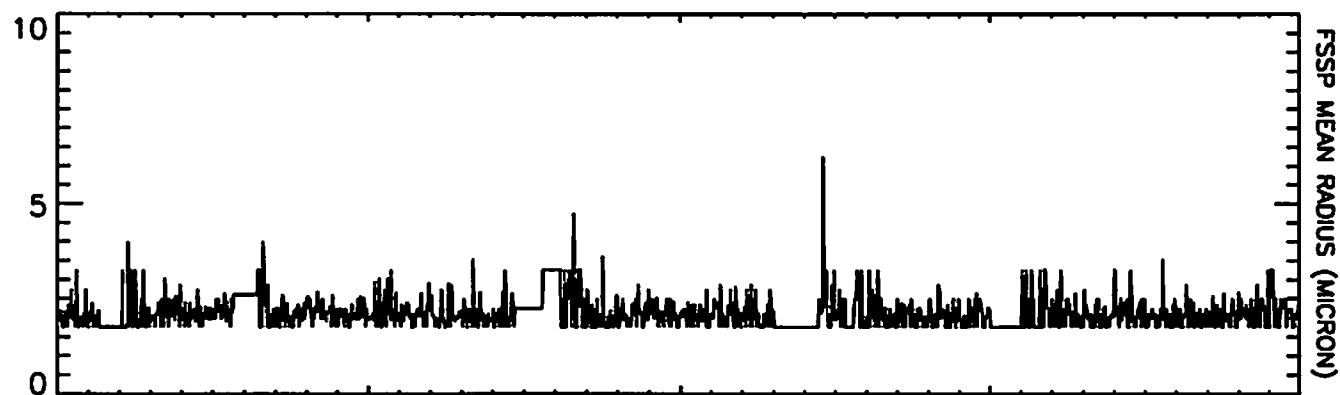
### FSSP CONCENTRATION (CM-3)

Parameter no. 901  
No. of obs 1453  
Mean 0.269046  
Standard dev 0.141773  
Max value 0.803421  
Min value 2.461500e-02



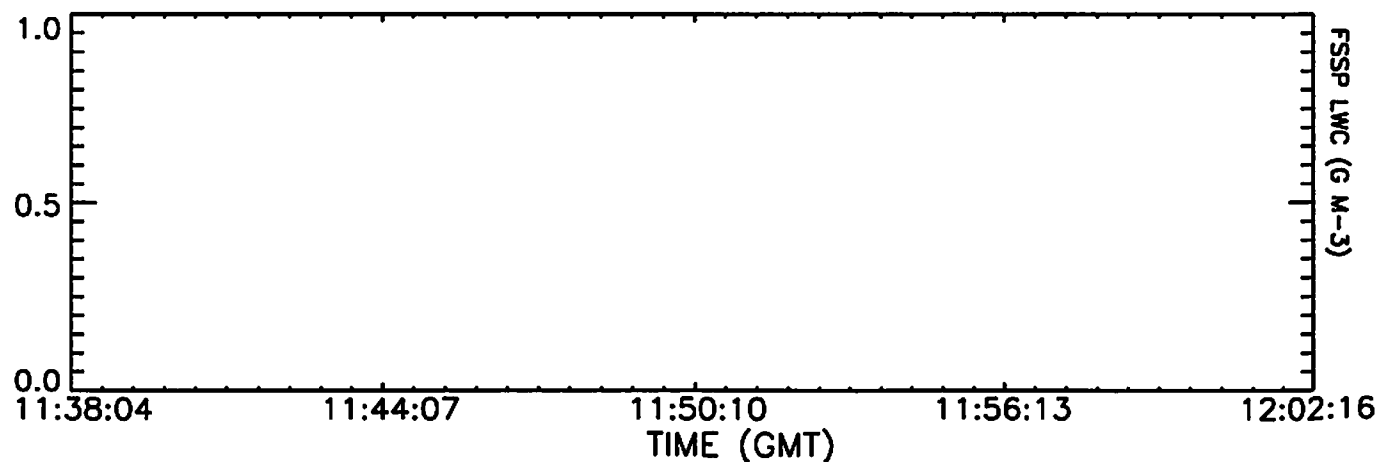
### FSSP MEAN RADIUS (MICRON)

Parameter no. 902  
No. of obs 1453  
Mean 2.12074  
Standard dev 0.408501  
Max value 6.25000  
Min value 1.75000



### FSSP LWC (G M-3)

Parameter no. 903  
No. of obs 1453  
Mean 1.483848e-05  
Standard dev 1.414610e-05  
Max value 1.547920e-04  
Min value 5.526067e-07



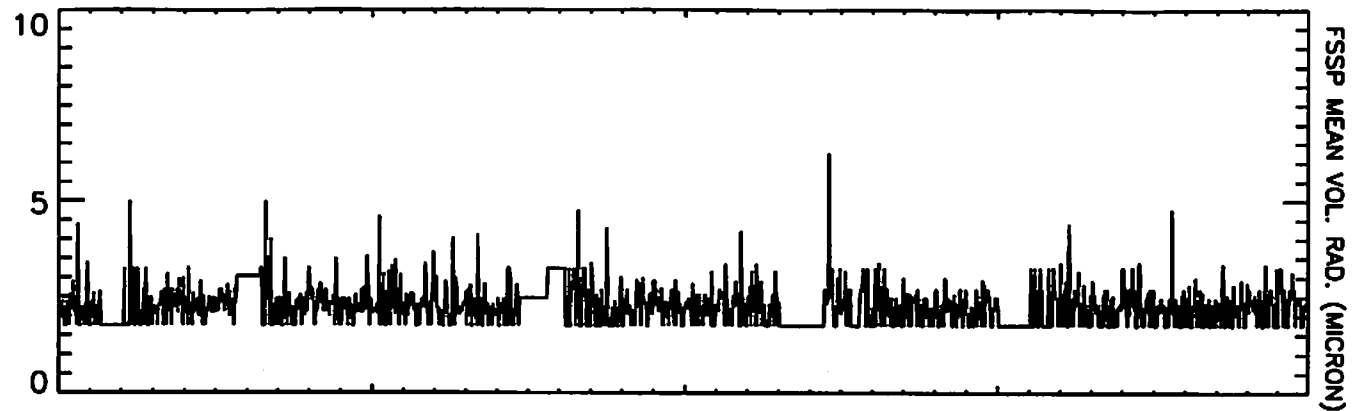
1 second averages

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Run no. R3

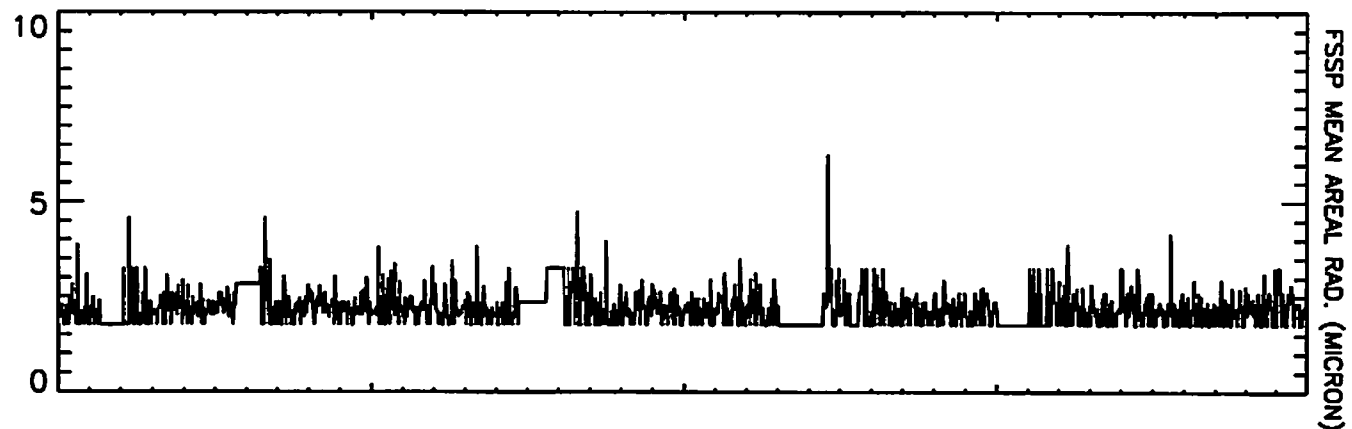
FSSP MEAN VOL. RAD. (MICRON)

Parameter no. 904  
No. of obs 1453  
Mean 2.26635  
Standard dev 0.504521  
Max value 6.25145  
Min value 1.75025



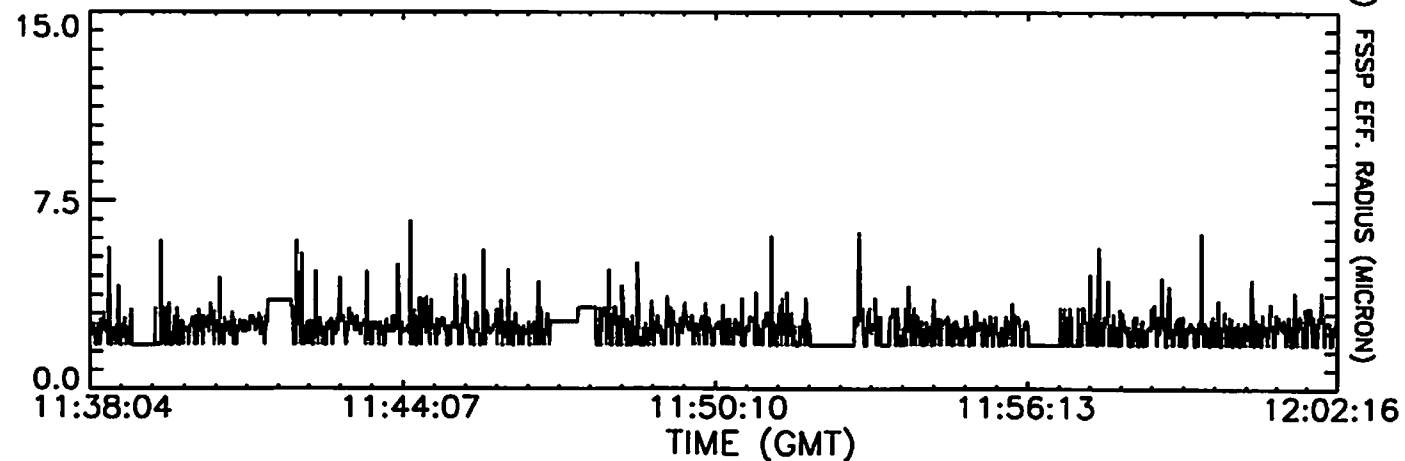
FSSP MEAN AREAL RAD. (MICRON)

Parameter no. 905  
No. of obs 1453  
Mean 2.19206  
Standard dev 0.453705  
Max value 6.24953  
Min value 1.74999



FSSP EFF. RADIUS (MICRON)

Parameter no. 906  
No. of obs 1453  
Mean 2.42803  
Standard dev 0.648174  
Max value 6.73396  
Min value 1.75008



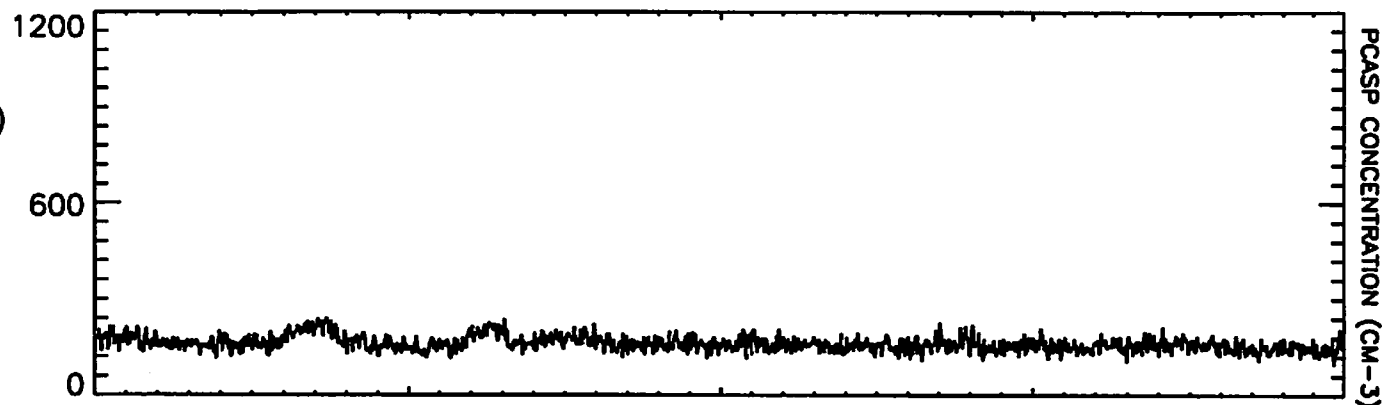
1 second averages

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Run no. R3

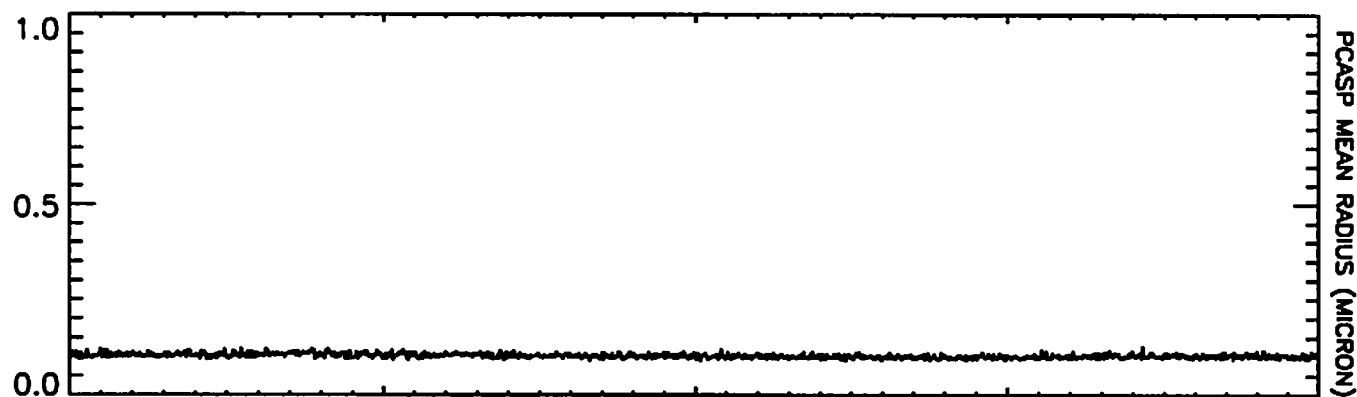
### PCASP CONCENTRATION (CM-3)

Parameter no. 919  
No. of obs 1453  
Mean 161.133  
Standard dev 23.2160  
Max value 240.665  
Min value 95.1441



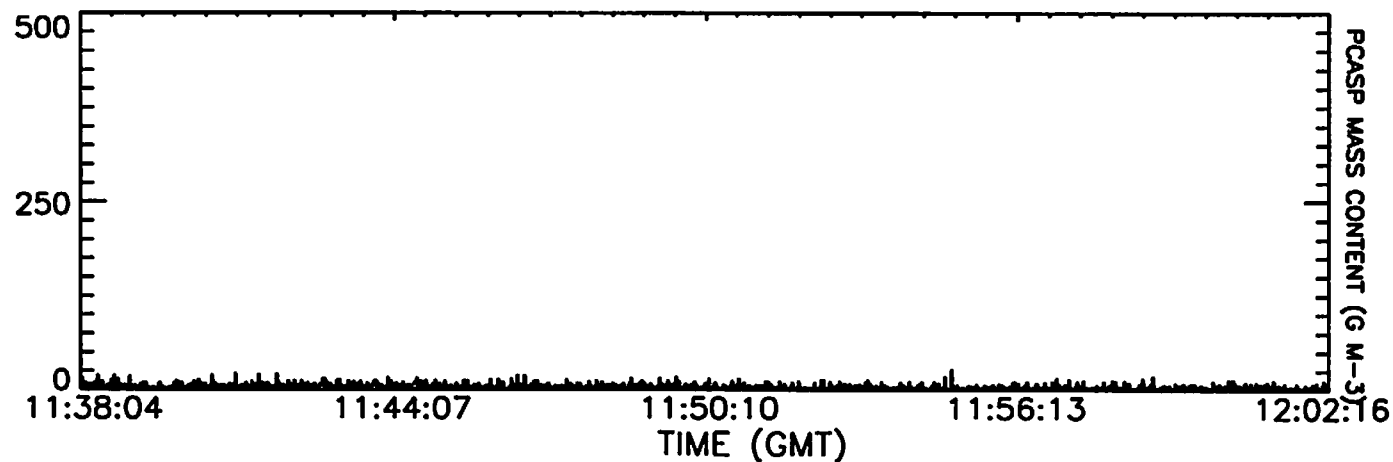
### PCASP MEAN RADIUS (MICRON)

Parameter no. 920  
No. of obs 1453  
Mean 0.102219  
Standard dev 6.262618e-03  
Max value 0.128435  
Min value 8.686098e-02



### PCASP MASS CONTENT (G M-3)

Parameter no. 921  
No. of obs 1453  
Mean 4.15123  
Standard dev 3.77514  
Max value 28.3605  
Min value 0.423856



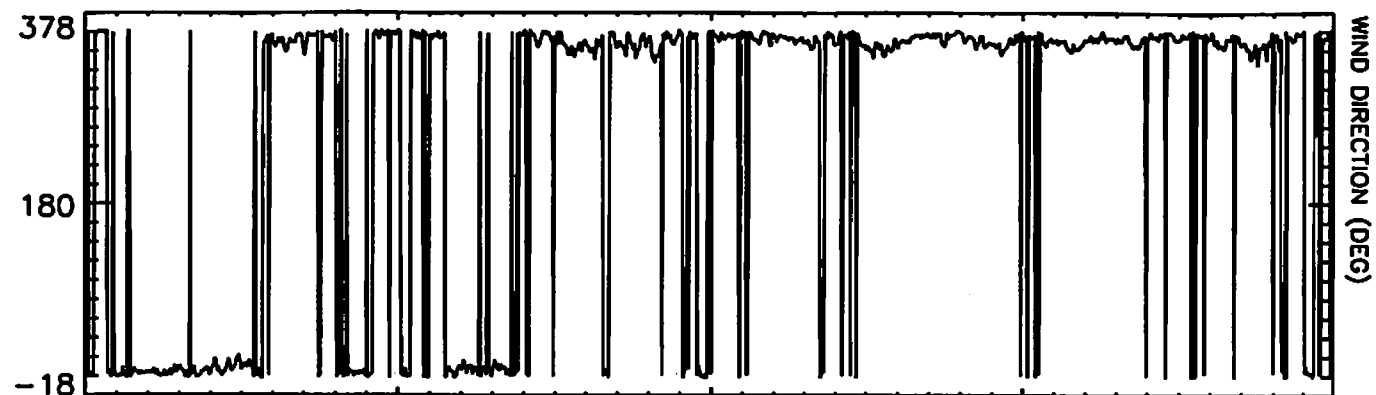
1 second averages

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Run no. R4

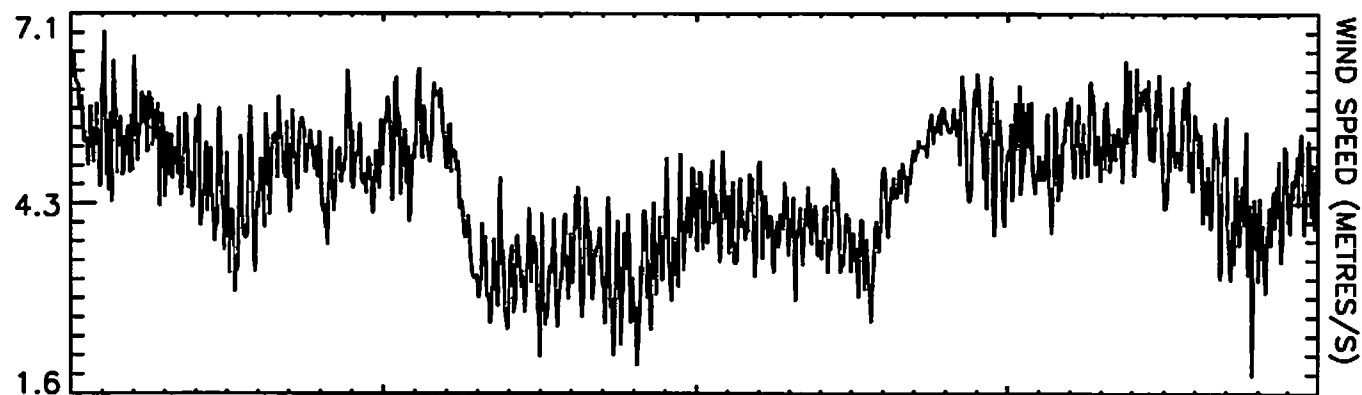
WIND DIRECTION (DEG)

No. of obs 1173  
Mean 253.097  
Standard dev 154.917  
Max value 359.997  
Min value 2.087308e-02



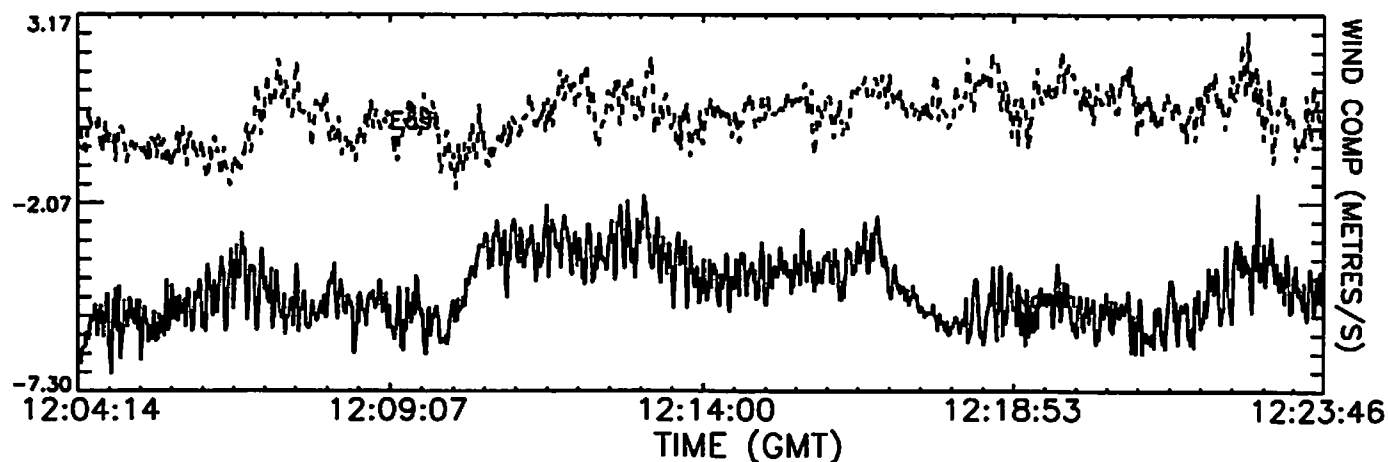
WIND SPEED (METRES/S)

No. of obs 1173  
Mean 4.55602  
Standard dev 0.880194  
Max value 6.83054  
Min value 1.83552



WIND COMP (METRES/s)

Parameter no. 714,715  
No. of obs 1173  
Mean north -4.48033  
Stan dev north 0.895496  
Max north -1.78496  
Min north -6.82469  
Mean east -4.48033  
Stan dev east 0.895496  
Max east -1.78496  
Min east -6.82469



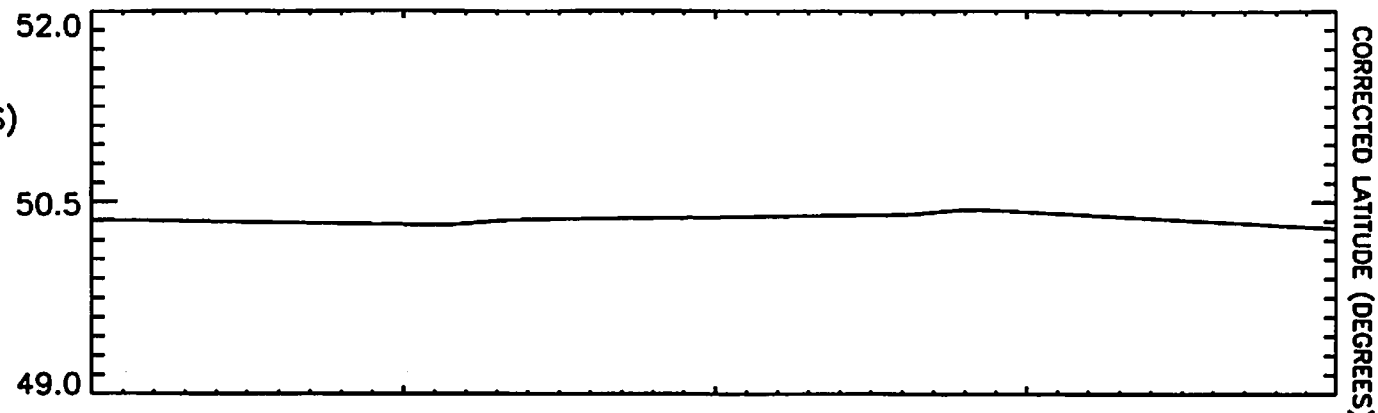
1 second averages

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Run no. R4

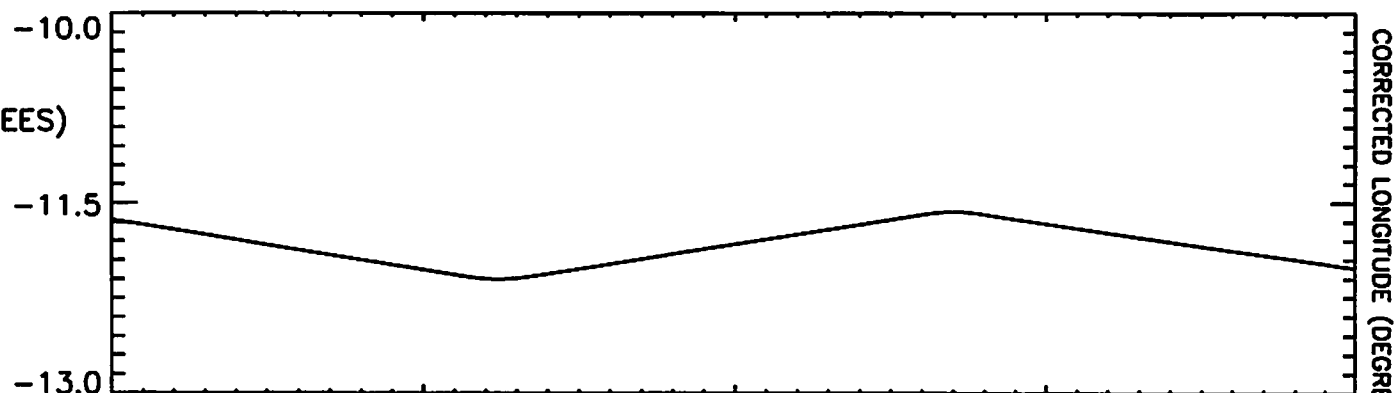
CORRECTED LATITUDE (DEGREES)

Parameter no. 730  
No. of obs 1173  
Mean 50.3655  
Standard dev 3.408228e-02  
Max value 50.4396  
Min value 50.2950



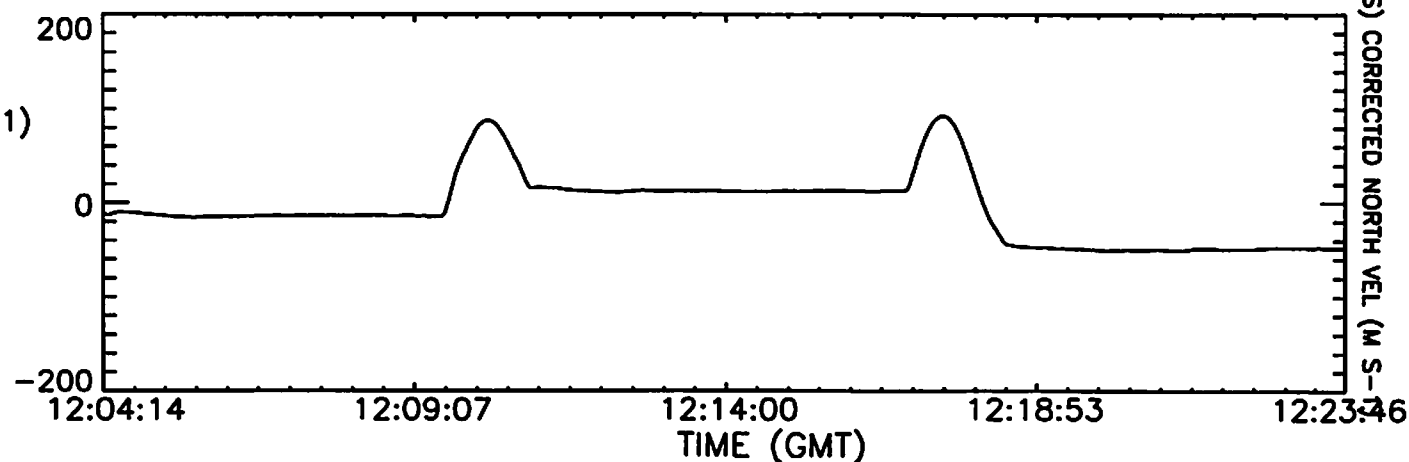
CORRECTED LONGITUDE (DEGREES)

Parameter no. 731  
No. of obs 1173  
Mean -11.8351  
Standard dev 0.151712  
Max value -11.5696  
Min value -12.1043



CORRECTED NORTH VEL (M S-1)

Parameter no. 735  
No. of obs 1173  
Mean -6.03825  
Standard dev 35.3589  
Max value 92.6442  
Min value -50.4259



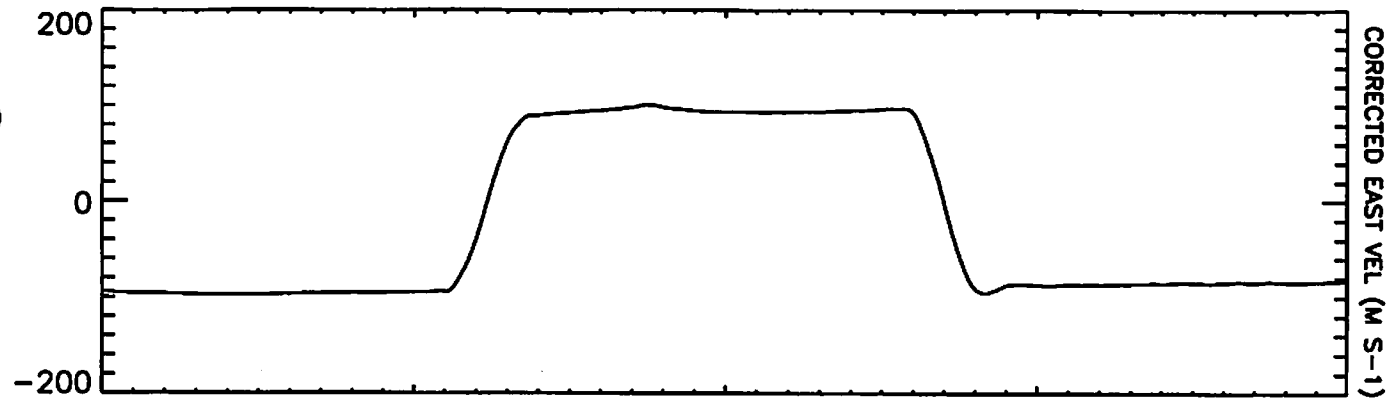
1 second averages

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Run no. R4

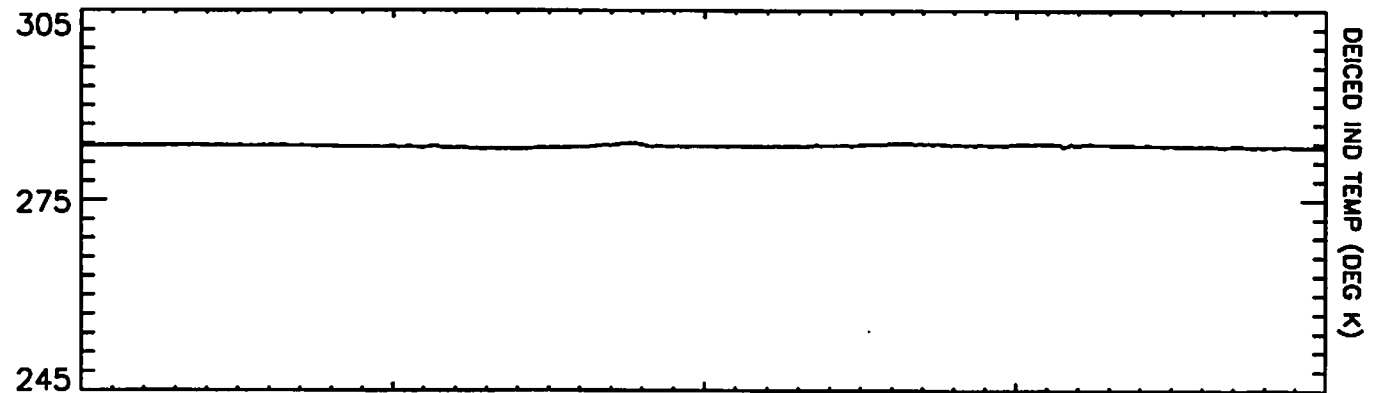
CORRECTED EAST VEL (M S-1)

Parameter no. 736  
No. of obs 1173  
Mean -23.3010  
Standard dev 86.2538  
Max value 100.767  
Min value -97.8233



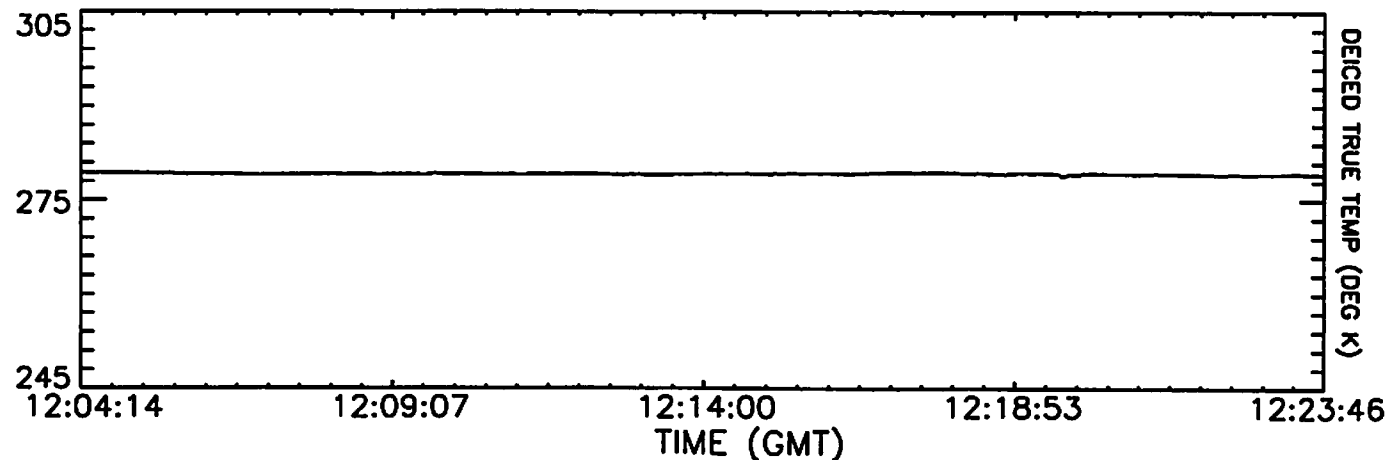
DEICED IND TEMP (DEG K)

Parameter no. 519  
No. of obs 1173  
Mean 283.627  
Standard dev 0.190005  
Max value 284.075  
Min value 283.157



DEICED TRUE TEMP (DEG K)

Parameter no. 520  
No. of obs 1173  
Mean 279.266  
Standard dev 9.703752e-02  
Max value 279.528  
Min value 278.874



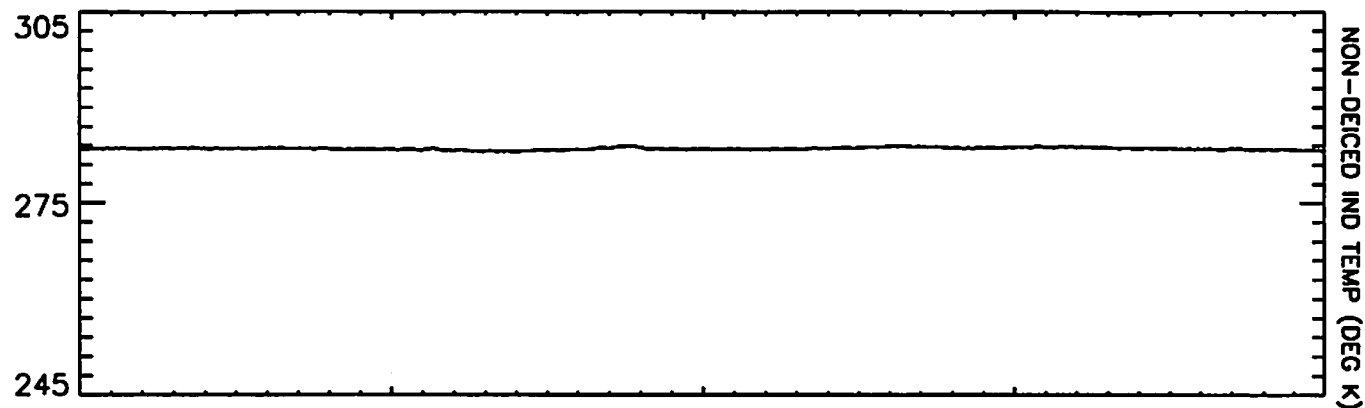
1 second averages

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Run no. R4

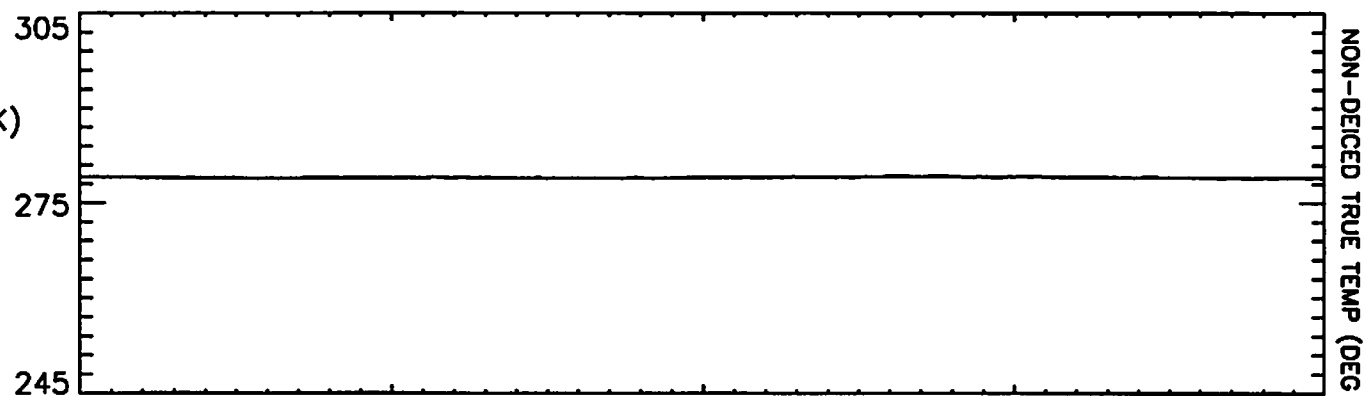
NON-DEICED IND TEMP (DEG K)

Parameter no. 524  
No. of obs 1173  
Mean 283.527  
Standard dev 0.195962  
Max value 283.968  
Min value 283.048



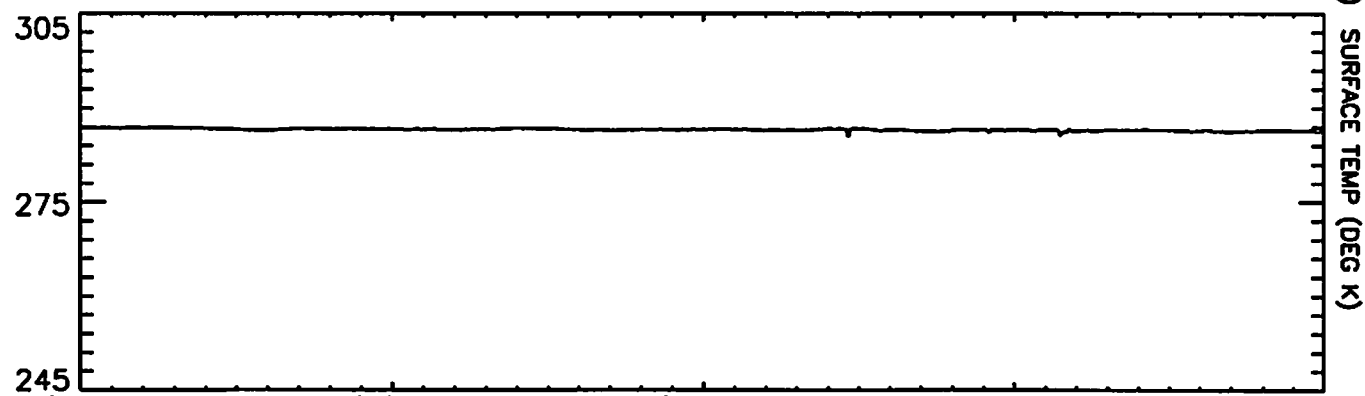
NON-DEICED TRUE TEMP (DEG K)

Parameter no. 525  
No. of obs 1173  
Mean 279.038  
Standard dev 9.455103e-02  
Max value 279.289  
Min value 278.834



SURFACE TEMP (DEG K)

Parameter no. 537  
No. of obs 1173  
Mean 286.572  
Standard dev 0.158619  
Max value 286.949  
Min value 285.557



1 second averages

TIME (GMT)

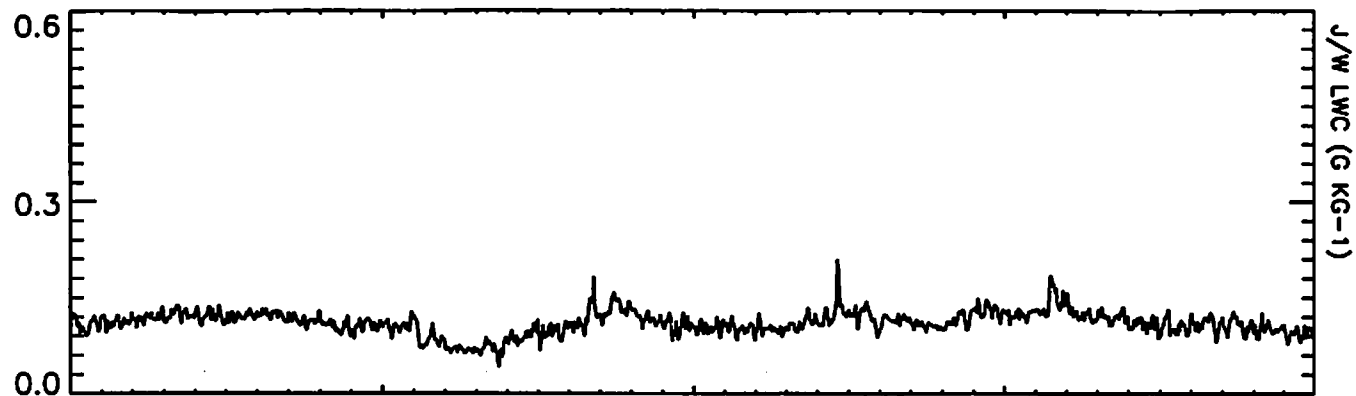


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Run no. R4

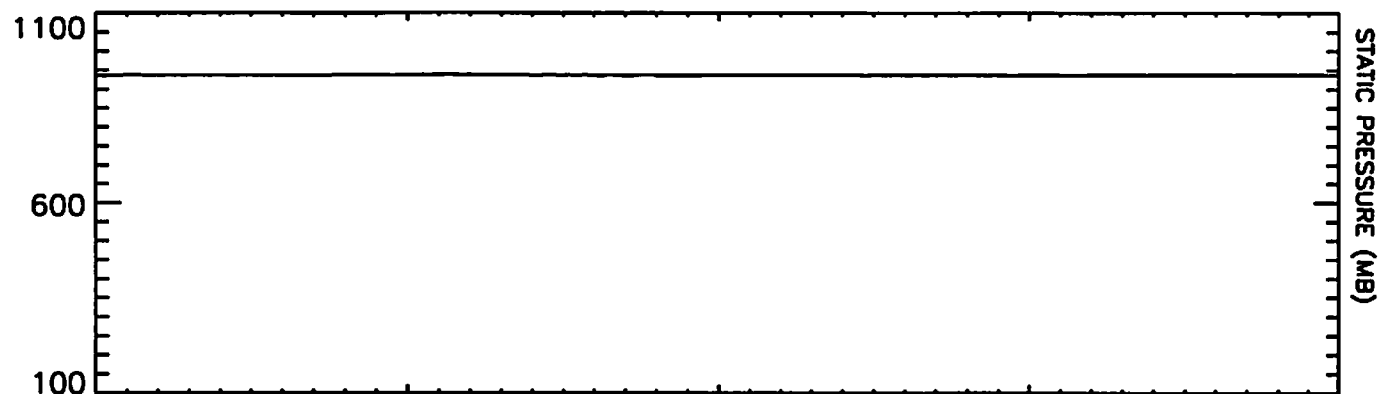
J/W LWC (G KG-1)

Parameter no. 535  
No. of obs 1173  
Mean 0.110499  
Standard dev 1.822540e-02  
Max value 0.210026  
Min value 4.135213e-02



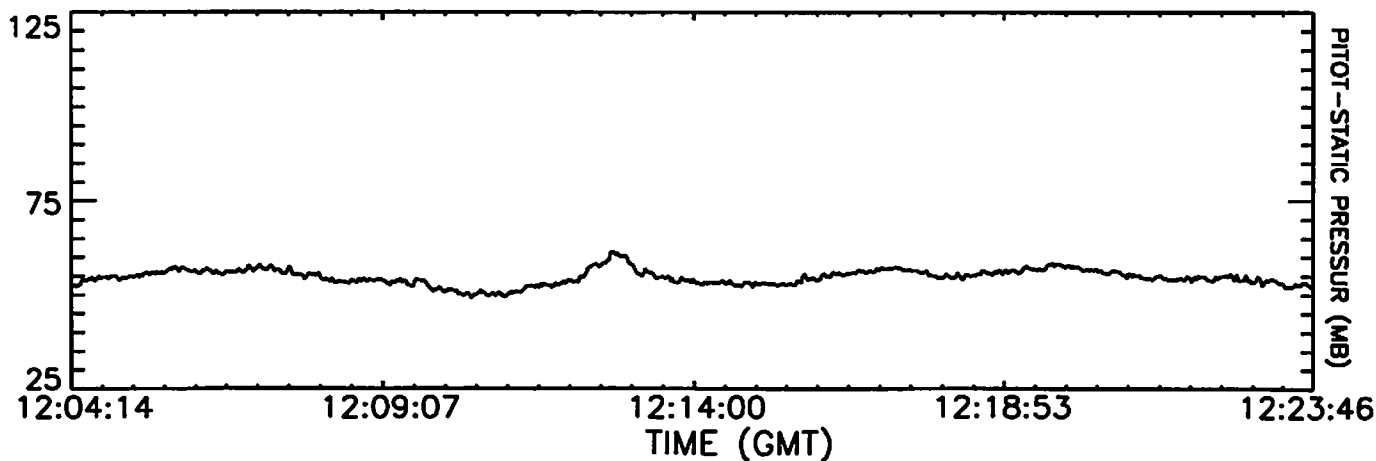
STATIC PRESSURE (MB)

Parameter no. 576  
No. of obs 1173  
Mean 937.484  
Standard dev 0.465304  
Max value 939.395  
Min value 936.181



PITOT-STATIC PRESSUR (MB)

Parameter no. 577  
No. of obs 1173  
Mean 54.6918  
Standard dev 2.00334  
Max value 61.3931  
Min value 49.2633



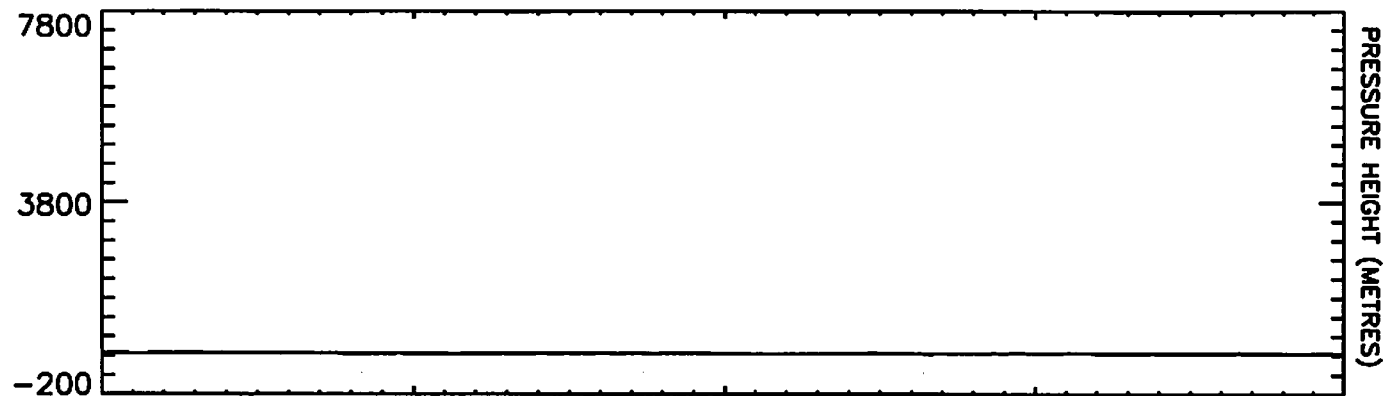
1 second averages

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Run no. R4

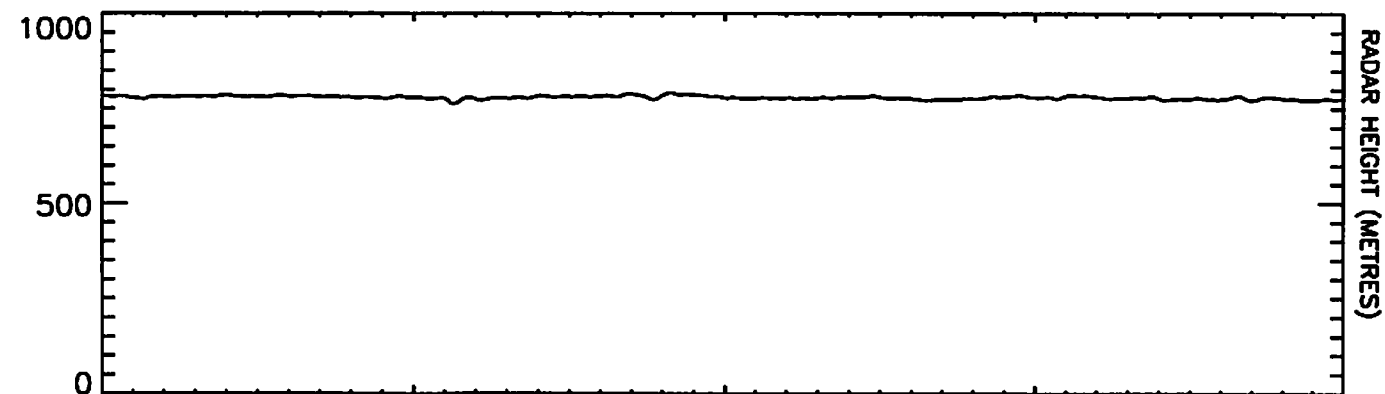
PRESSURE HEIGHT (METRES)

Parameter no. 578  
No. of obs 1173  
Mean 650.687  
Standard dev 4.12422  
Max value 662.244  
Min value 633.762



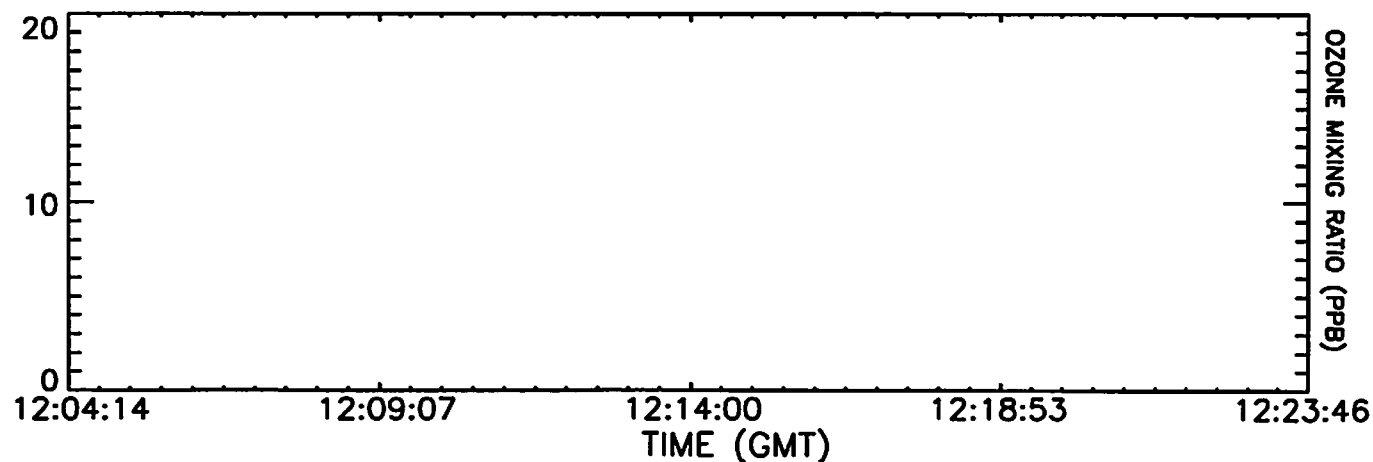
RADAR HEIGHT (METRES)

Parameter no. 575  
No. of obs 1173  
Mean 779.861  
Standard dev 3.89503  
Max value 792.864  
Min value 762.756



OZONE MIXING RATIO (PPB)

Parameter no. 574  
No. of obs 1173  
Mean 0.000000  
Standard dev 0.000000  
Max value 0.000000  
Min value 0.000000



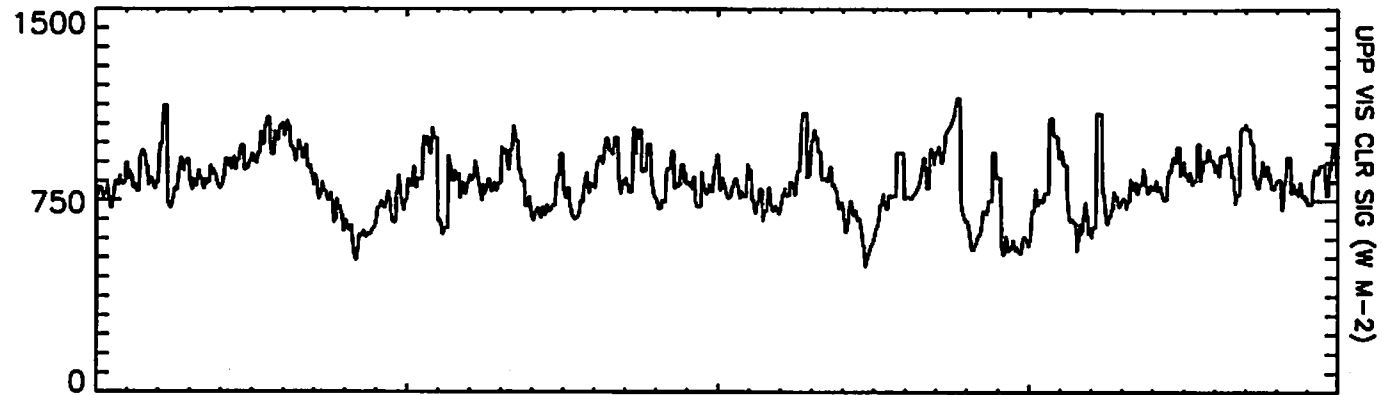
1 second averages

A462 26-JUN-96

Run no. R4

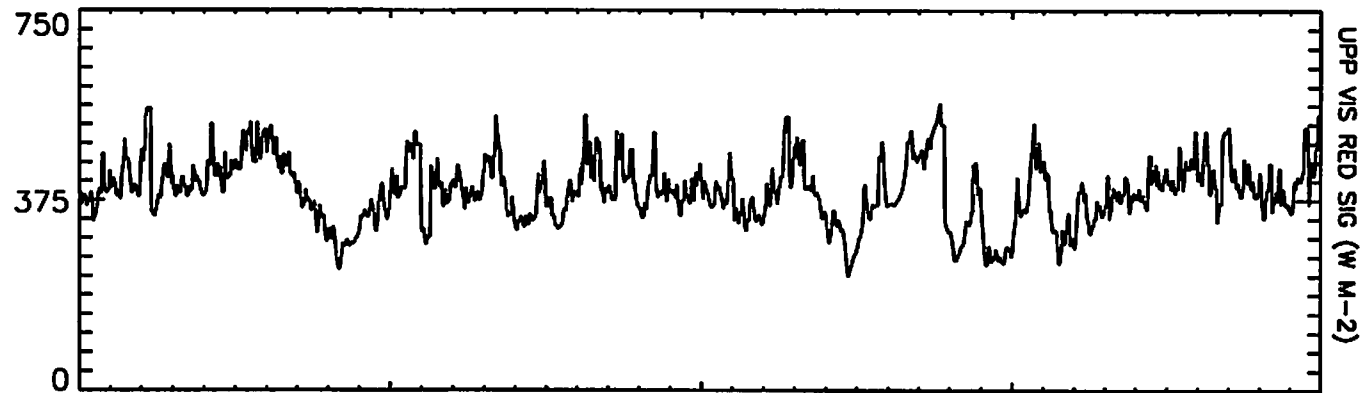
UPP VIS CLR SIG (W M-2)

Parameter no. 673  
No. of obs 1173  
Mean 814.659  
Standard dev 121.597  
Max value 1150.96  
Min value 0.000000



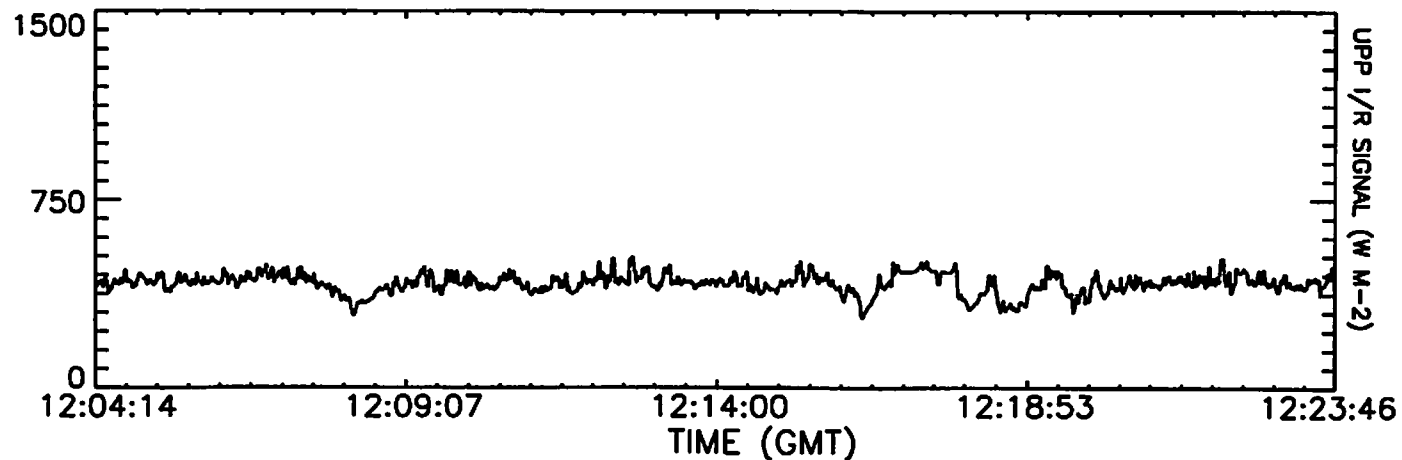
UPP VIS RED SIG (W M-2)

Parameter no. 674  
No. of obs 1173  
Mean 392.700  
Standard dev 63.1950  
Max value 567.307  
Min value 223.431



UPP I/R SIGNAL (W M-2)

Parameter no. 675  
No. of obs 1173  
Mean 417.150  
Standard dev 39.1607  
Max value 518.982  
Min value 278.987



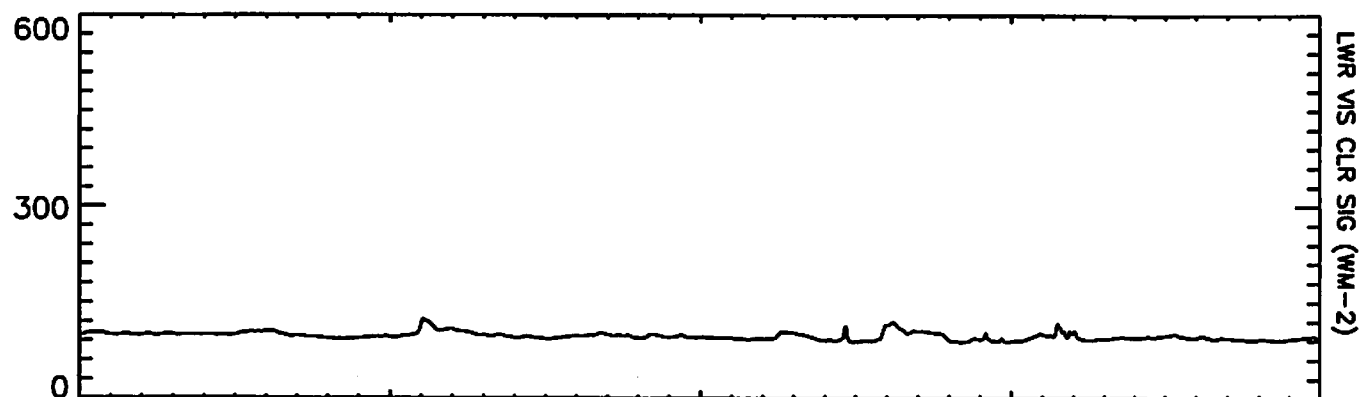
1 second averages

A462 26-JUN-96

Run no. R4

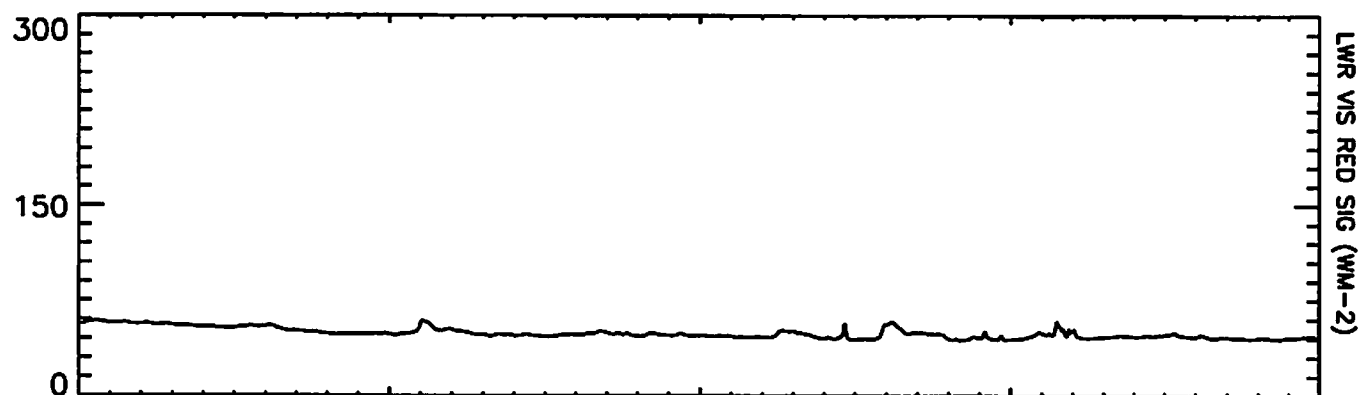
LWR VIS CLR SIG (WM-2)

Parameter no. 682  
No. of obs 1173  
Mean 97.3967  
Standard dev 5.42366  
Max value 123.790  
Min value 87.5000



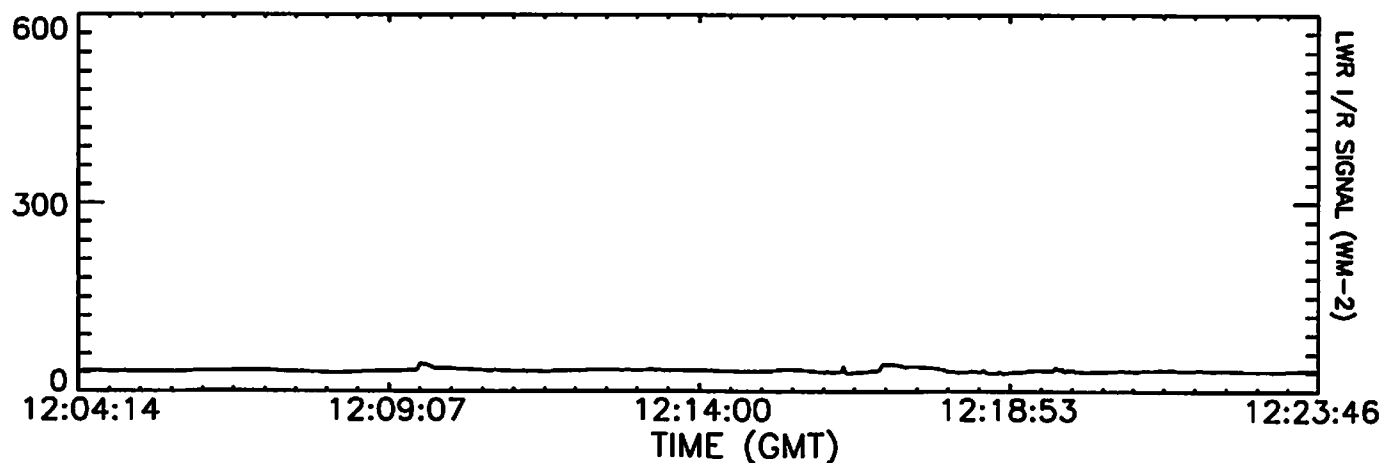
LWR VIS RED SIG (WM-2)

Parameter no. 683  
No. of obs 1173  
Mean 49.0525  
Standard dev 3.74300  
Max value 58.8133  
Min value 43.4707



LWR I/R SIGNAL (WM-2)

Parameter no. 684  
No. of obs 1173  
Mean 33.1189  
Standard dev 2.45186  
Max value 45.0490  
Min value 28.9774



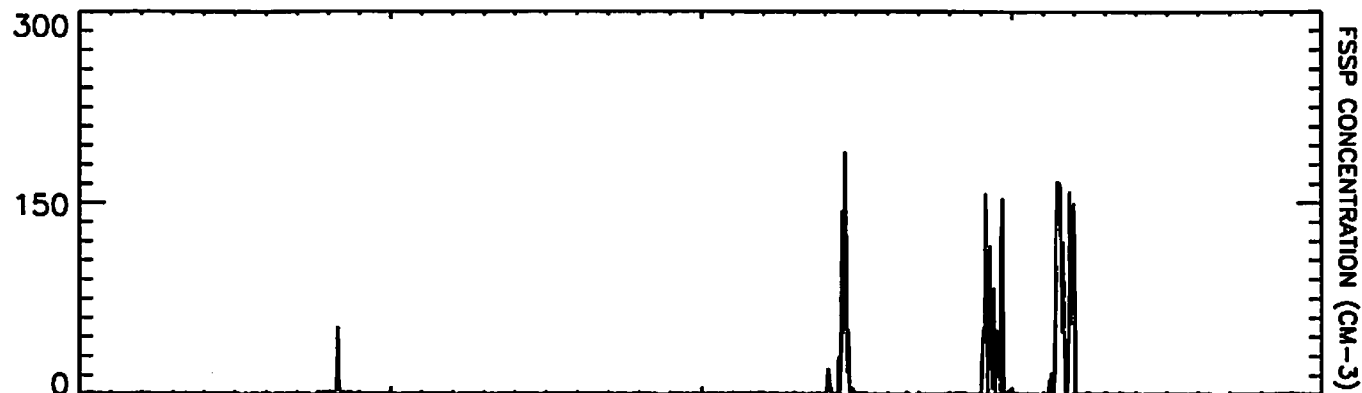
1 second averages

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Run no. R4

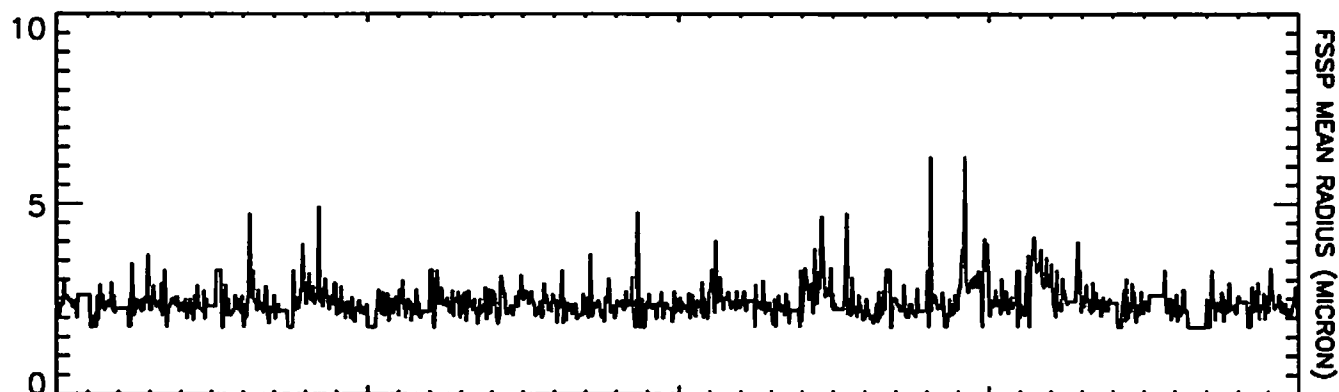
FSSP CONCENTRATION (CM-3)

Parameter no. 901  
No. of obs 1173  
Mean 3.91414  
Standard dev 18.2756  
Max value 190.099  
Min value 2.486940e-02



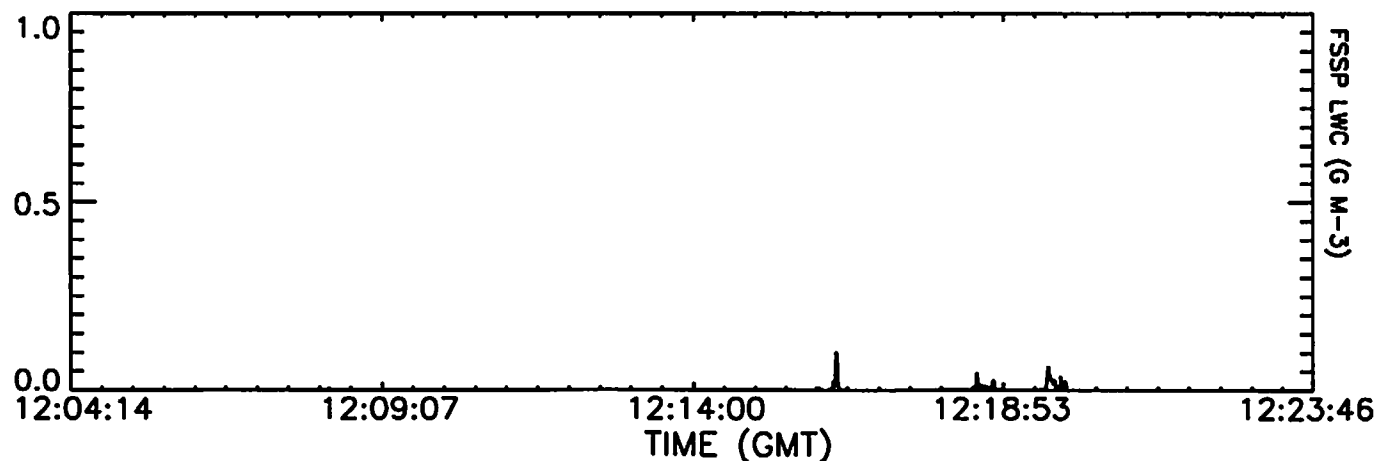
FSSP MEAN RADIUS (MICRON)

Parameter no. 902  
No. of obs 1173  
Mean 2.41500  
Standard dev 0.451835  
Max value 6.25000  
Min value 1.75000



FSSP LWC (G M-3)

Parameter no. 903  
No. of obs 1173  
Mean 8.291430e-04  
Standard dev 5.177179e-03  
Max value 0.103309  
Min value 5.583543e-07



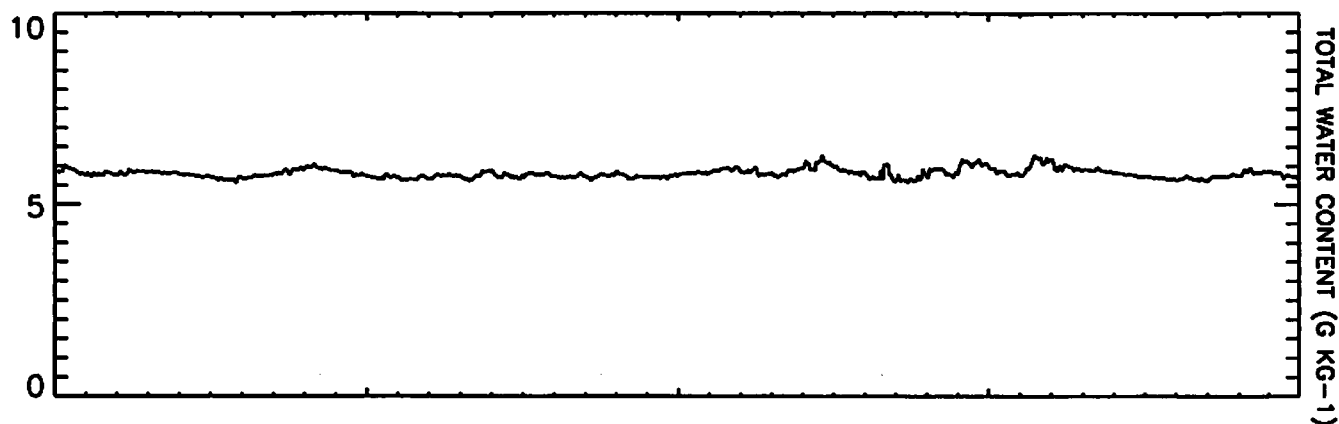
1 second averages

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Run no. R4

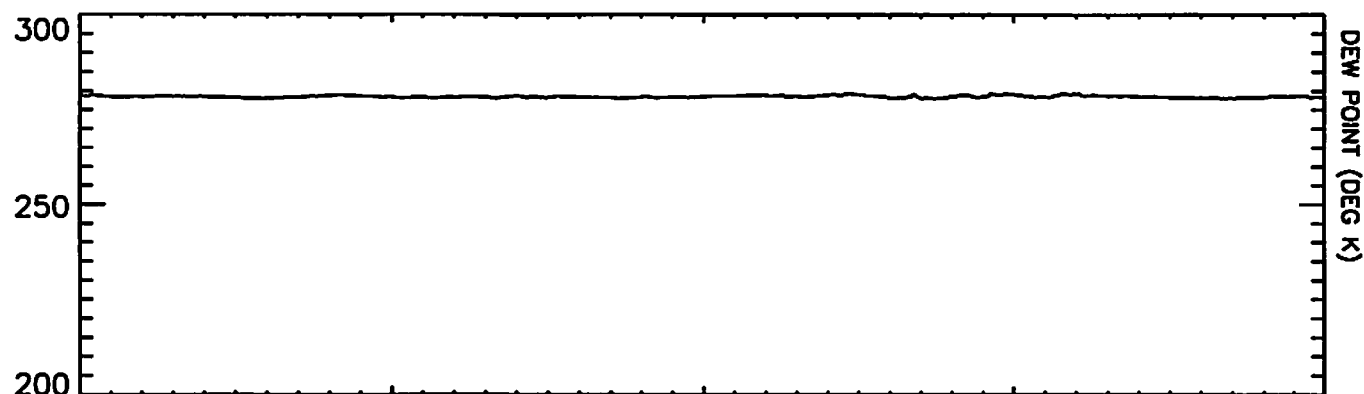
TOTAL WATER CONTENT (G KG-1)

Parameter no. 572  
No. of obs 1173  
Mean 5.81084  
Standard dev 0.120974  
Max value 6.28412  
Min value 5.57510



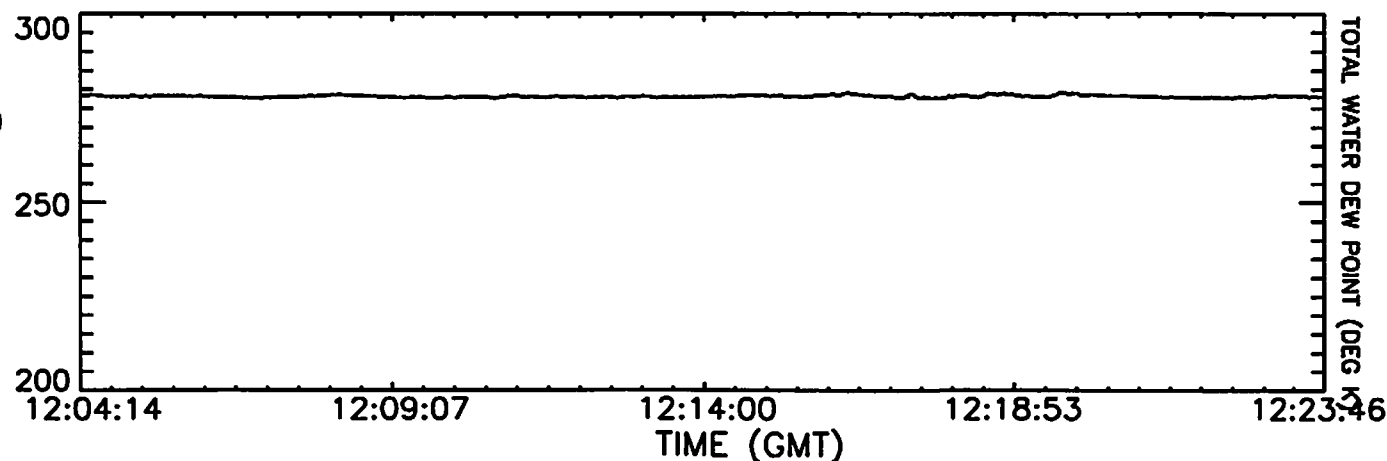
DEW POINT (DEG K)

Parameter no. 529  
No. of obs 1173  
Mean 278.503  
Standard dev 0.285871  
Max value 279.433  
Min value 277.864



TOTAL WATER DEW POINT (DEG K)

Parameter no. 725  
No. of obs 1173  
Mean 278.210  
Standard dev 0.293869  
Max value 279.331  
Min value 277.623



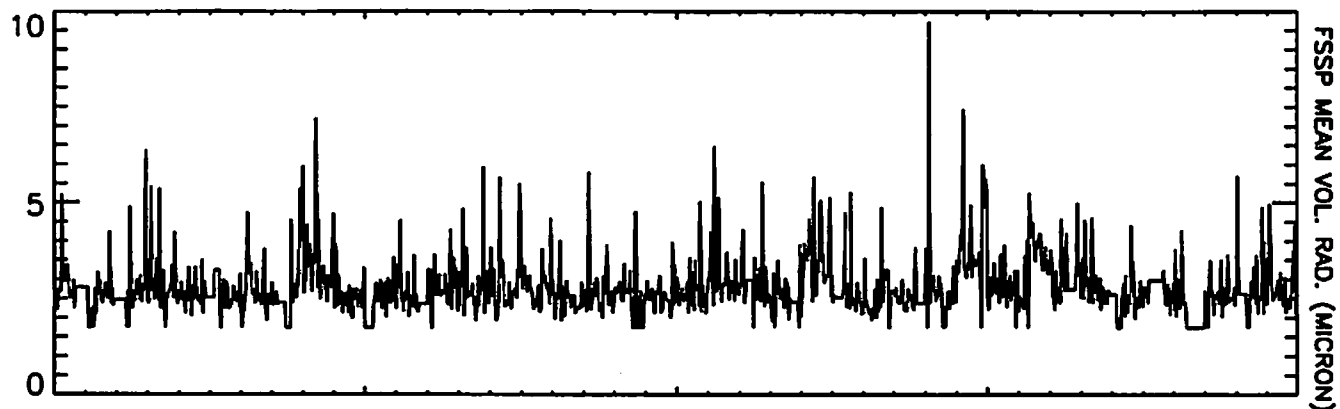
1 second averages

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Run no. R4

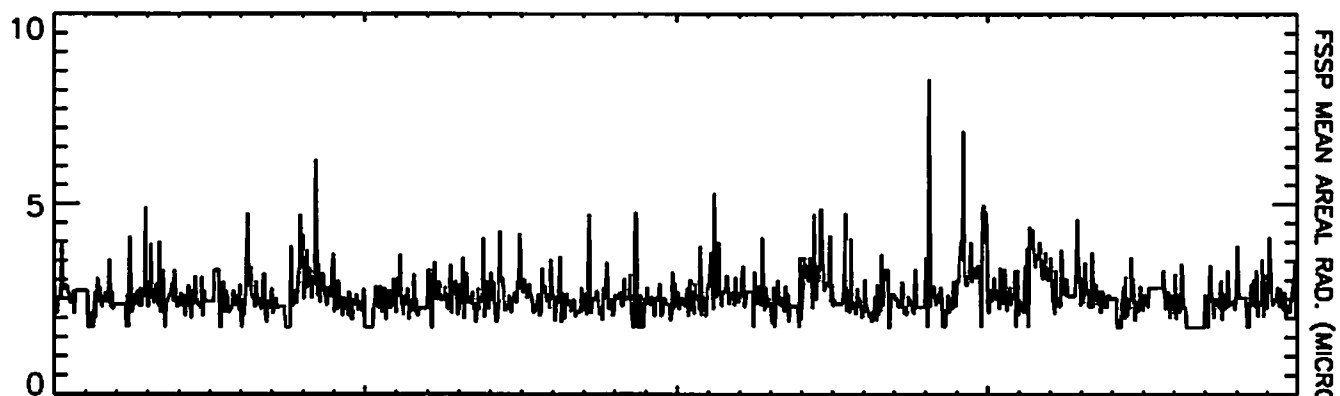
FSSP MEAN VOL. RAD. (MICRON)

Parameter no. 904  
No. of obs 1173  
Mean 2.80578  
Standard dev 0.759410  
Max value 9.72057  
Min value 1.75025



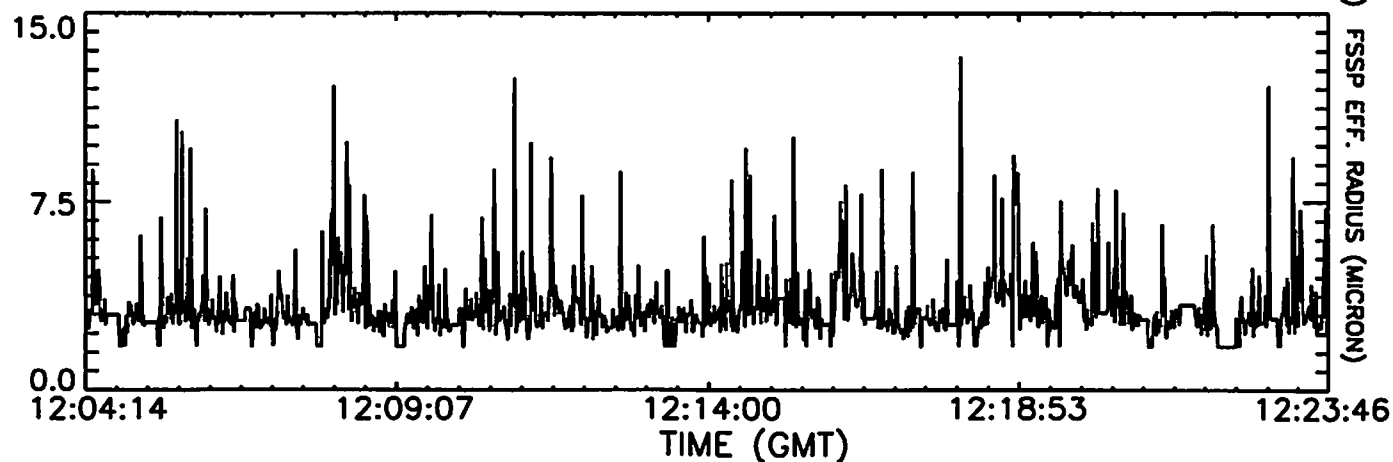
FSSP MEAN AREAL RAD. (MICRON)

Parameter no. 905  
No. of obs 1173  
Mean 2.59874  
Standard dev 0.579673  
Max value 8.31021  
Min value 1.74999



FSSP EFF. RADIUS (MICRON)

Parameter no. 906  
No. of obs 1173  
Mean 3.31179  
Standard dev 1.39220  
Max value 13.2954  
Min value 1.75008



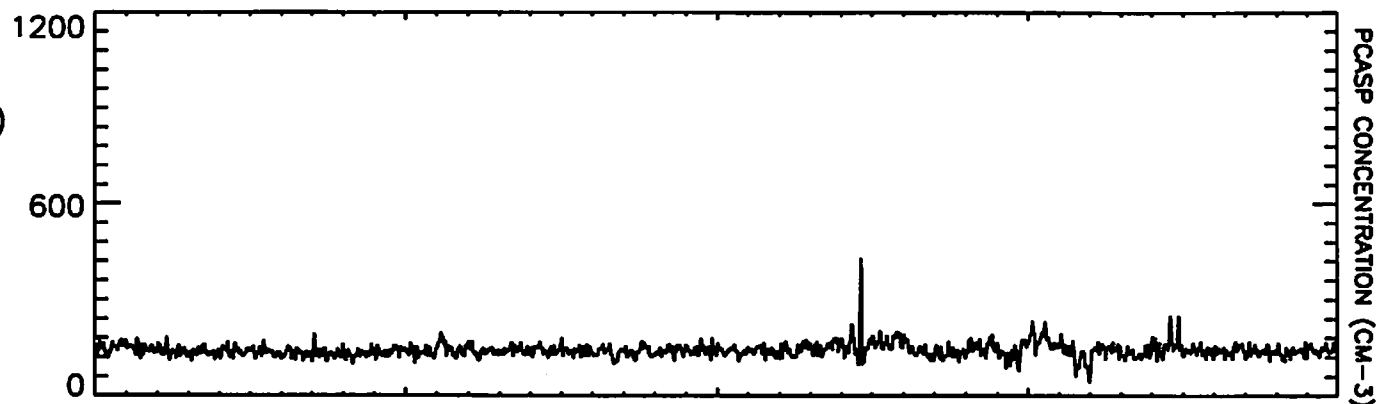
1 second averages

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Run no. R4

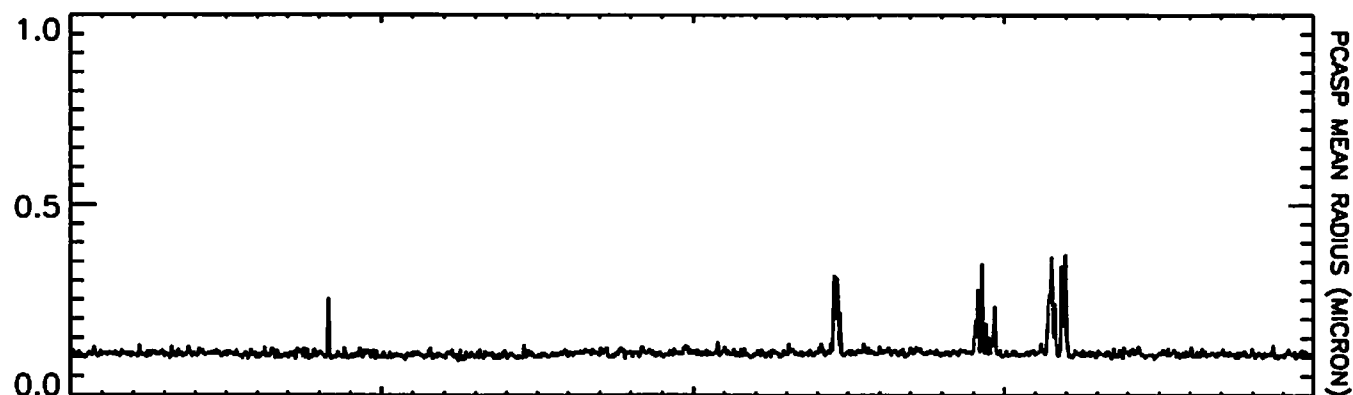
PCASP CONCENTRATION (CM-3)

Parameter no. 919  
No. of obs 1173  
Mean 142.130  
Standard dev 22.4611  
Max value 431.350  
Min value 41.0387



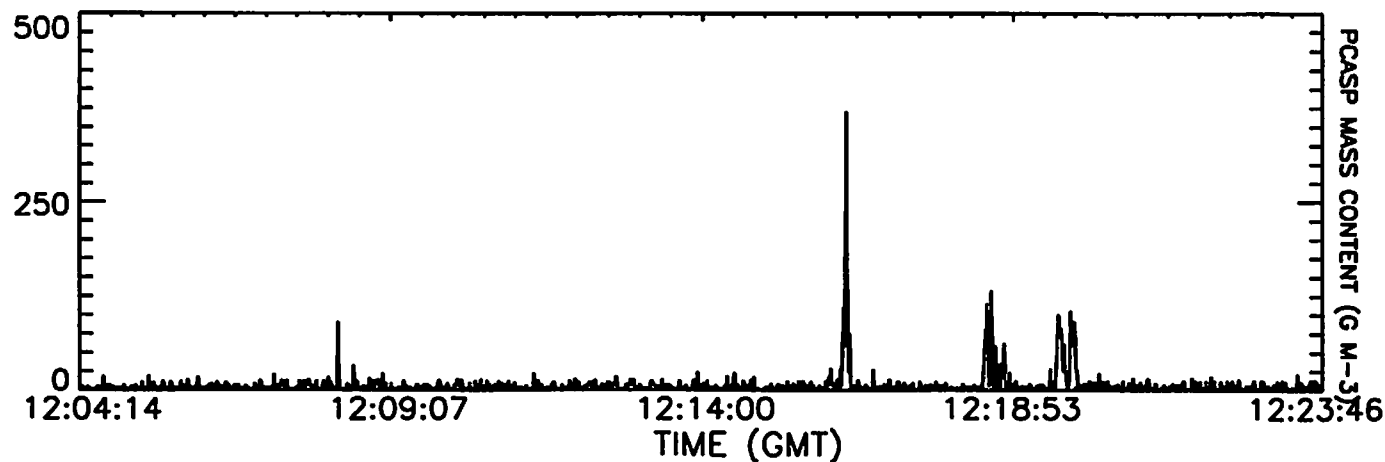
PCASP MEAN RADIUS (MICRON)

Parameter no. 920  
No. of obs 1173  
Mean 0.112604  
Standard dev 2.467579e-02  
Max value 0.371091  
Min value 8.928049e-02



PCASP MASS CONTENT (G M-3)

Parameter no. 921  
No. of obs 1173  
Mean 6.70630  
Standard dev 16.9672  
Max value 370.493  
Min value 0.483111



1 second averages

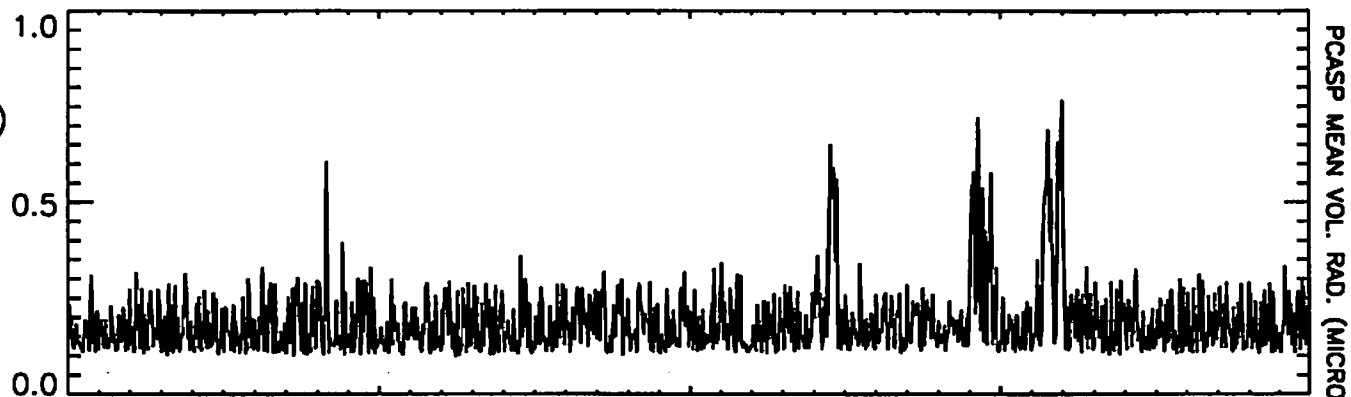


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Run no. R4

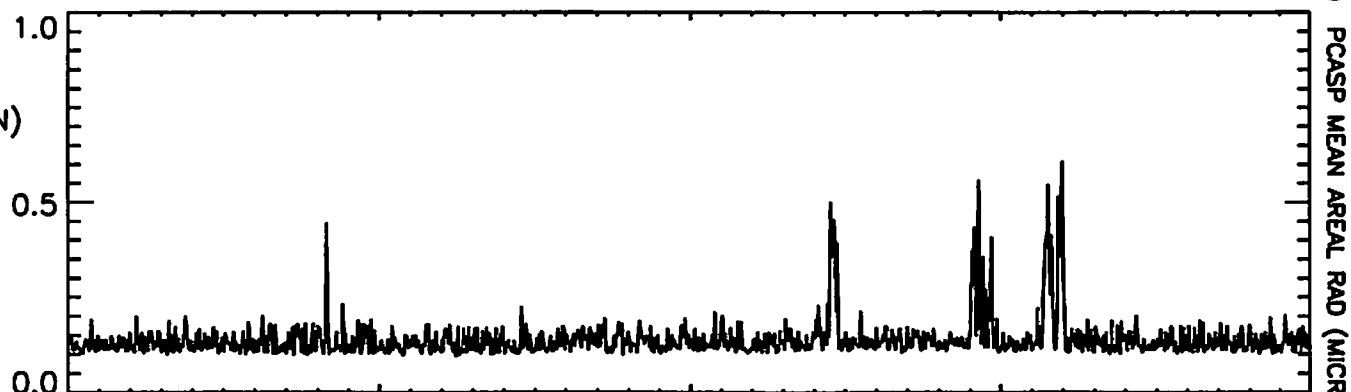
PCASP MEAN VOL. RAD. (MICRON)

Parameter no. 922  
No. of obs 1173  
Mean 0.187651  
Standard dev 8.577506e-02  
Max value 0.767251  
Min value 9.693953e-02



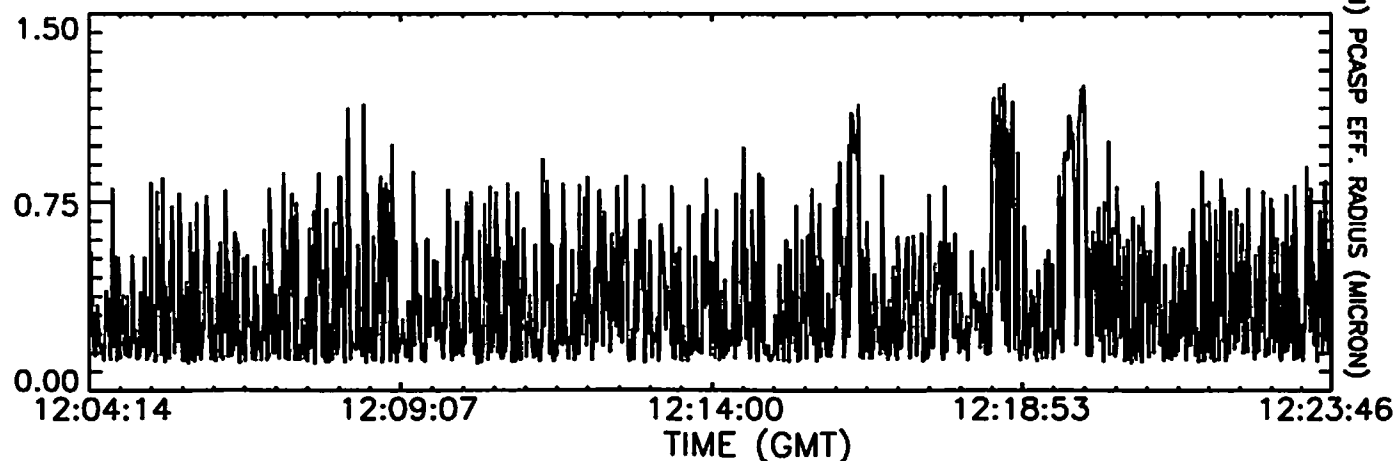
PCASP MEAN AREAL RAD (MICRON)

Parameter no. 923  
No. of obs 1173  
Mean 0.139415  
Standard dev 5.144055e-02  
Max value 0.609132  
Min value 9.314859e-02



PCASP EFF. RADIUS (MICRON)

Parameter no. 924  
No. of obs 1173  
Mean 0.362870  
Standard dev 0.247973  
Max value 1.22319  
Min value 0.104940



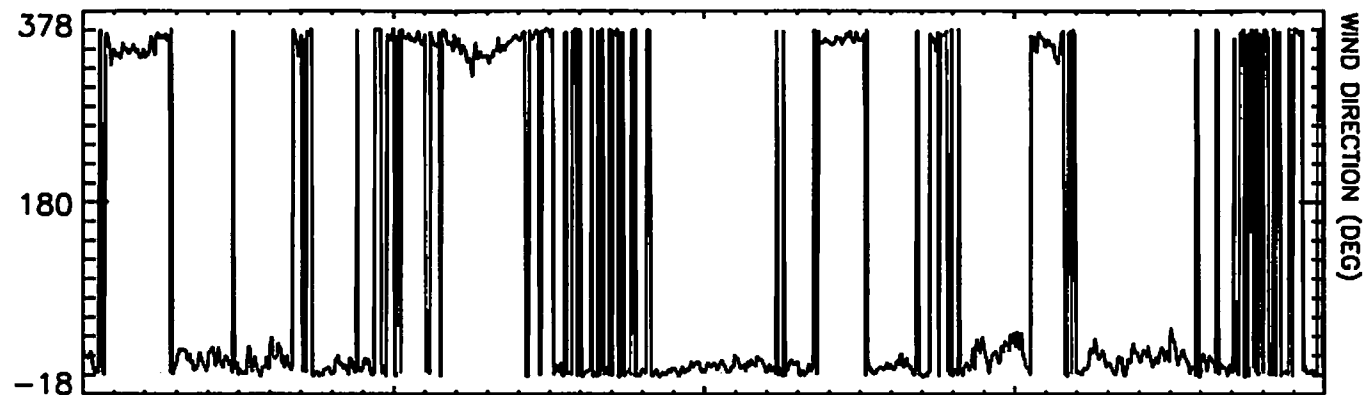
1 second averages

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Run no. R5

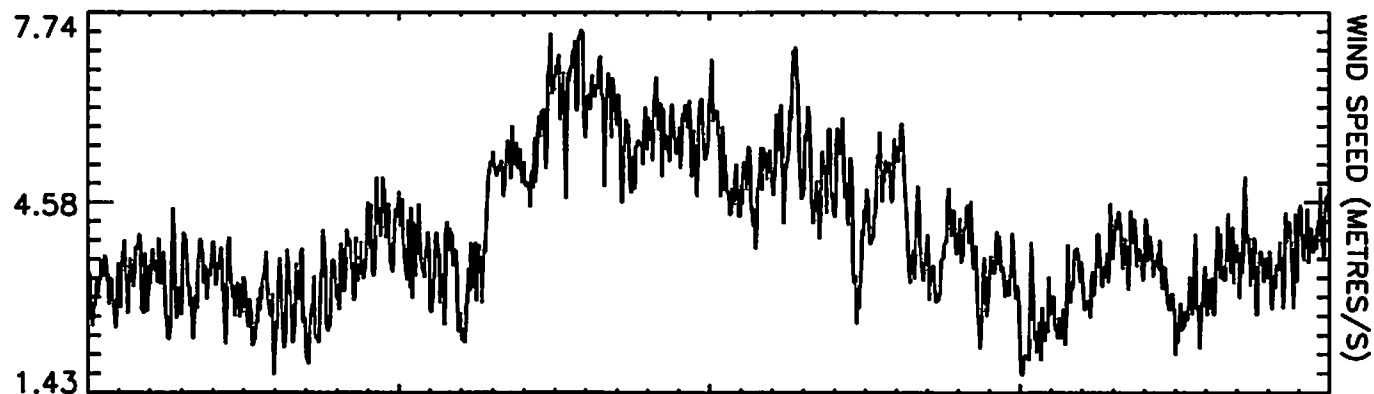
WIND DIRECTION (DEG)

No. of obs 1113  
Mean 129.730  
Standard dev 160.690  
Max value 359.995  
Min value 3.018946e-02



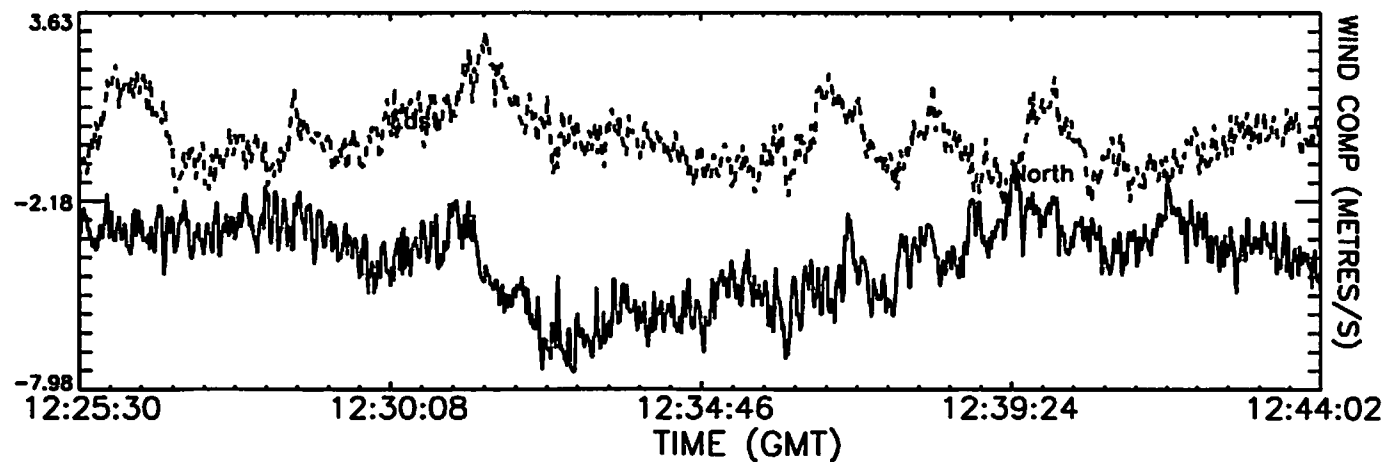
WIND SPEED (METRES/S)

No. of obs 1113  
Mean 4.08576  
Standard dev 1.19694  
Max value 7.45005  
Min value 1.71757



WIND COMP (METRES/s)

Parameter no. 714,715  
No. of obs 1113  
Mean north -3.96335  
Stan dev north 1.23836  
Max north -1.17572  
Min north -7.45005  
Mean east -3.96335  
Stan dev east 1.23836  
Max east -1.17572  
Min east -7.45005



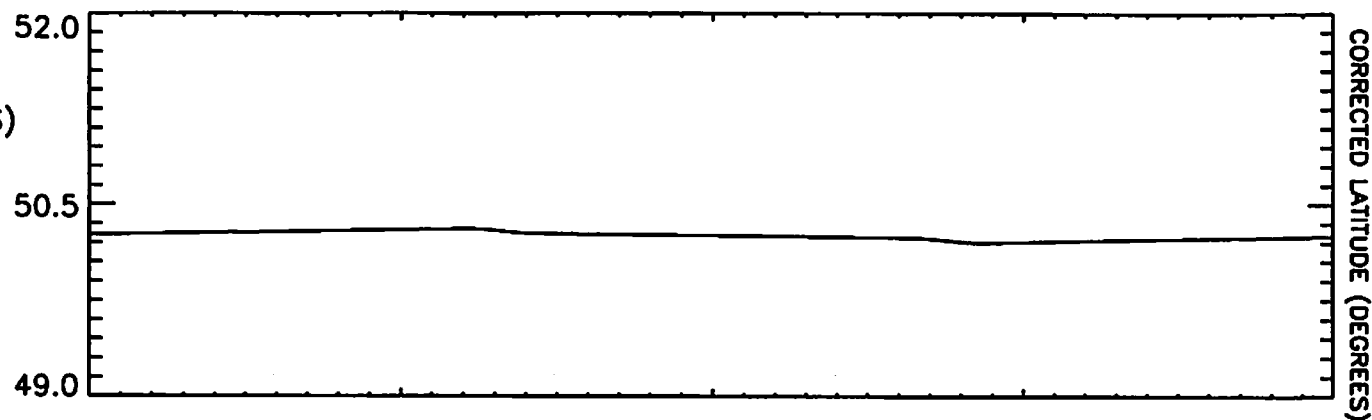
1 second averages

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Run no. R5

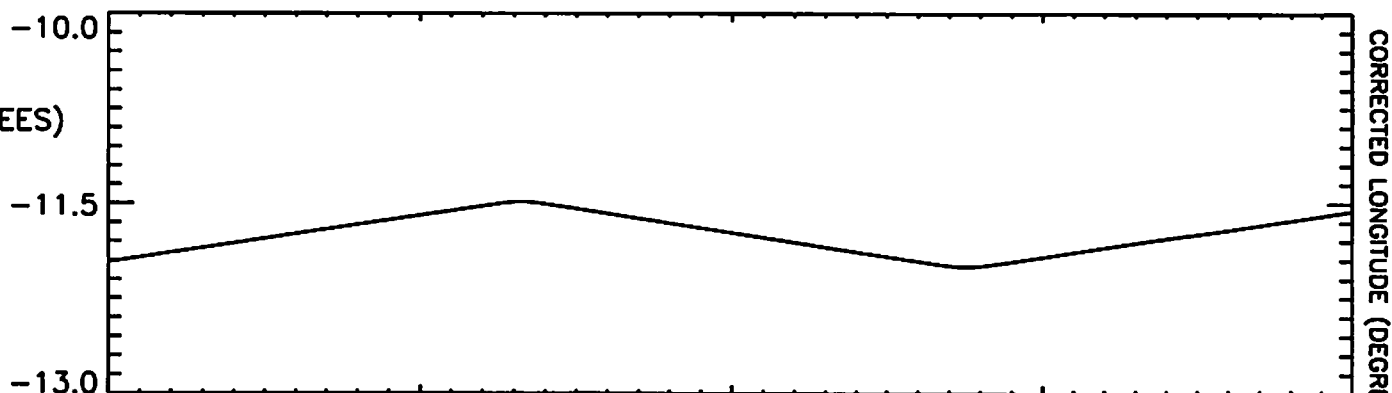
CORRECTED LATITUDE (DEGREES)

Parameter no. 730  
No. of obs 1113  
Mean 50.2564  
Standard dev 2.753776e-02  
Max value 50.3057  
Min value 50.2032



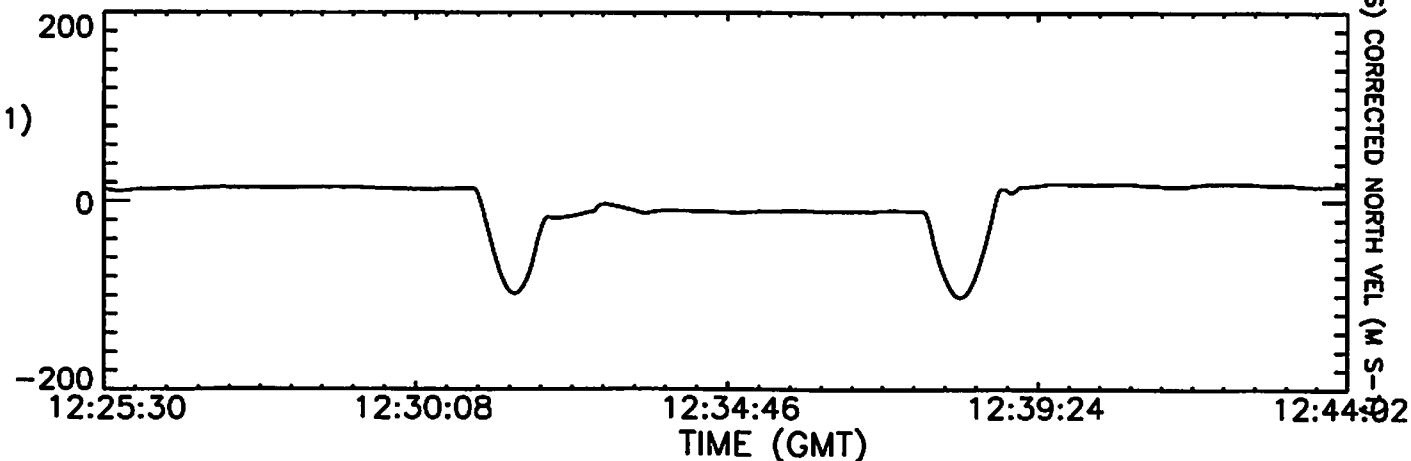
CORRECTED LONGITUDE (DEGREES)

Parameter no. 731  
No. of obs 1113  
Mean -11.7499  
Standard dev 0.145161  
Max value -11.4897  
Min value -11.9980



CORRECTED NORTH VEL (M S-1)

Parameter no. 735  
No. of obs 1113  
Mean -1.14793  
Standard dev 27.0163  
Max value 19.3187  
Min value -101.742



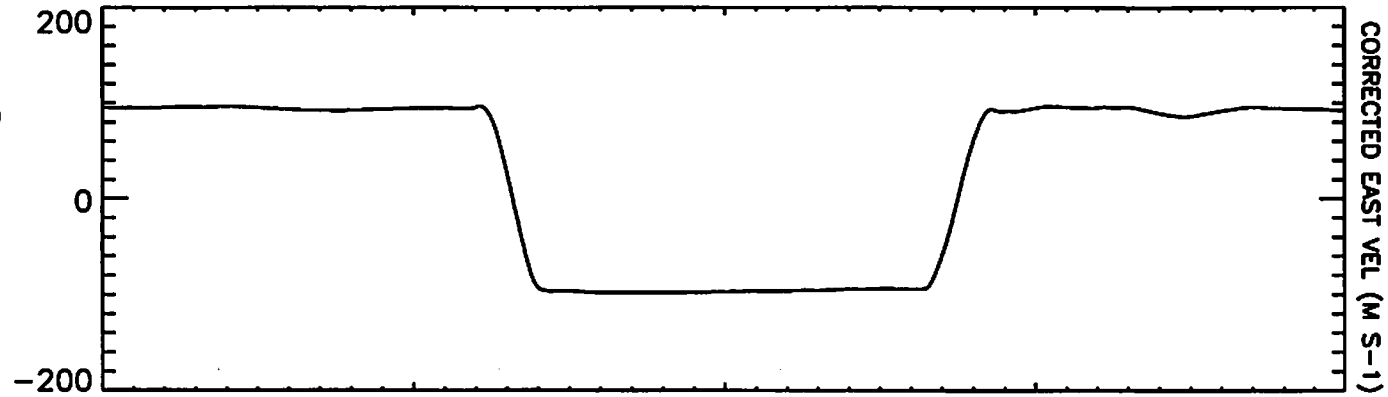
1 second averages

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Run no. R5

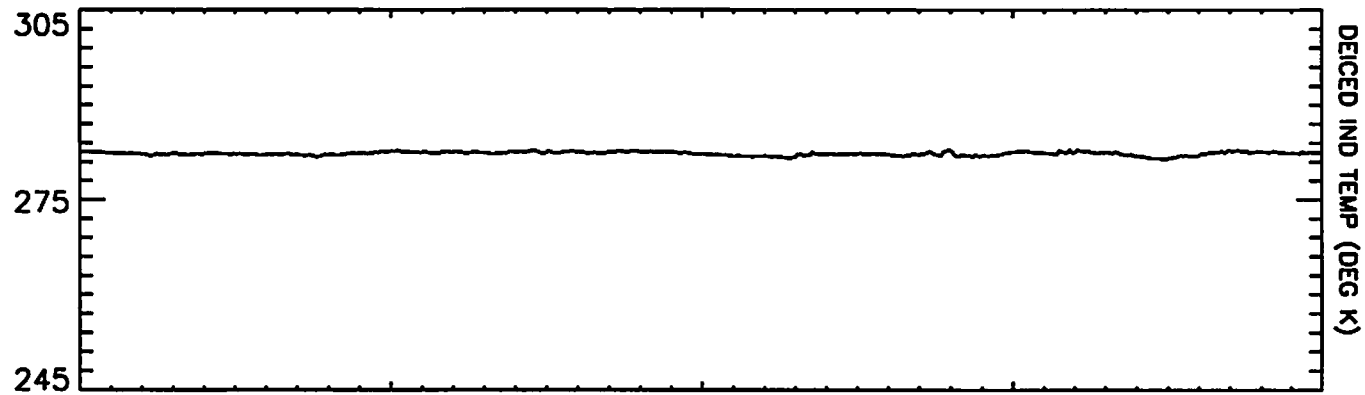
CORRECTED EAST VEL (M S-1)

Parameter no. 736  
No. of obs 1113  
Mean 25.9949  
Standard dev 88.3530  
Max value 96.8164  
Min value -97.8300



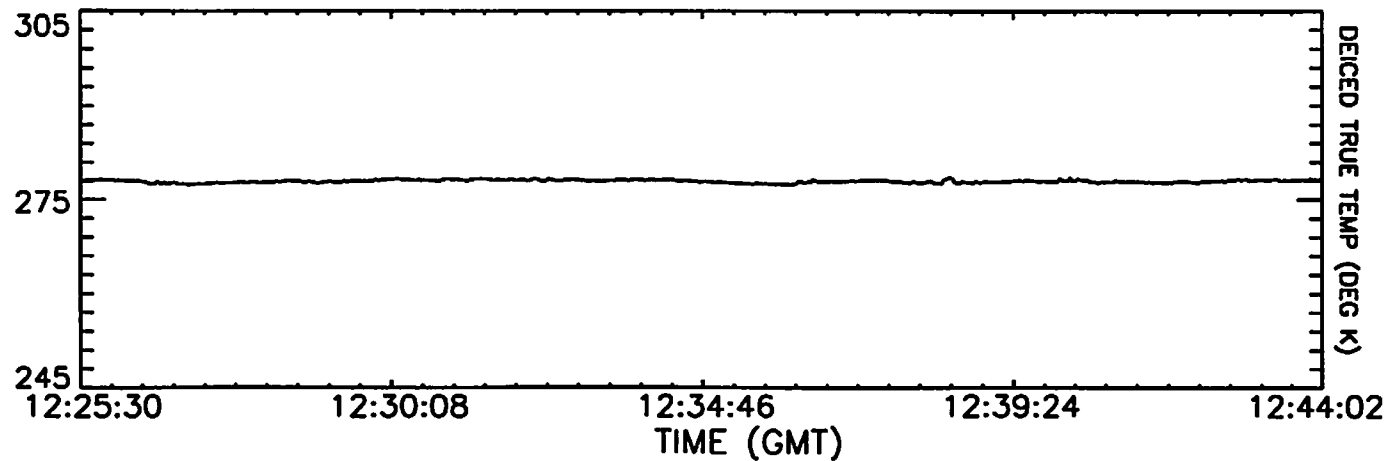
DEICED IND TEMP (DEG K)

Parameter no. 519  
No. of obs 1113  
Mean 282.311  
Standard dev 0.283060  
Max value 283.027  
Min value 281.448



DEICED TRUE TEMP (DEG K)

Parameter no. 520  
No. of obs 1113  
Mean 277.956  
Standard dev 0.218939  
Max value 278.565  
Min value 277.386



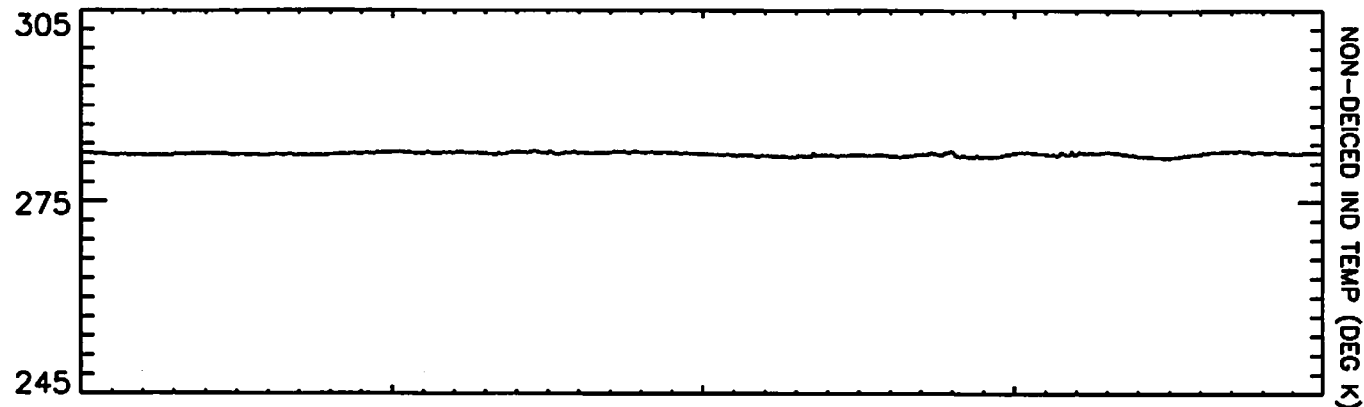
1 second averages

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Run no. R5

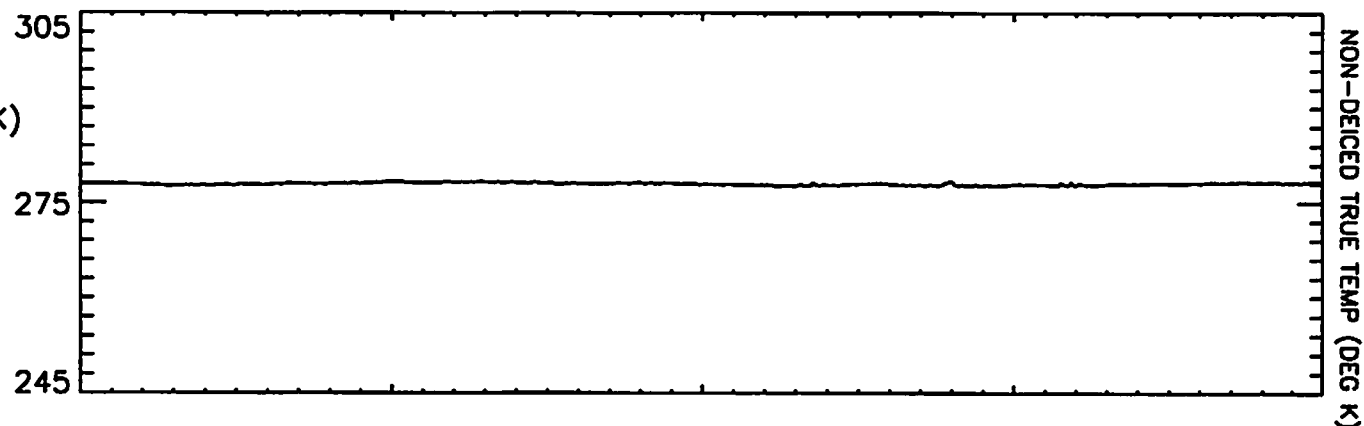
NON-DEICED IND TEMP (DEG K)

Parameter no. 524  
No. of obs 1113  
Mean 282.473  
Standard dev 0.236683  
Max value 283.056  
Min value 281.892



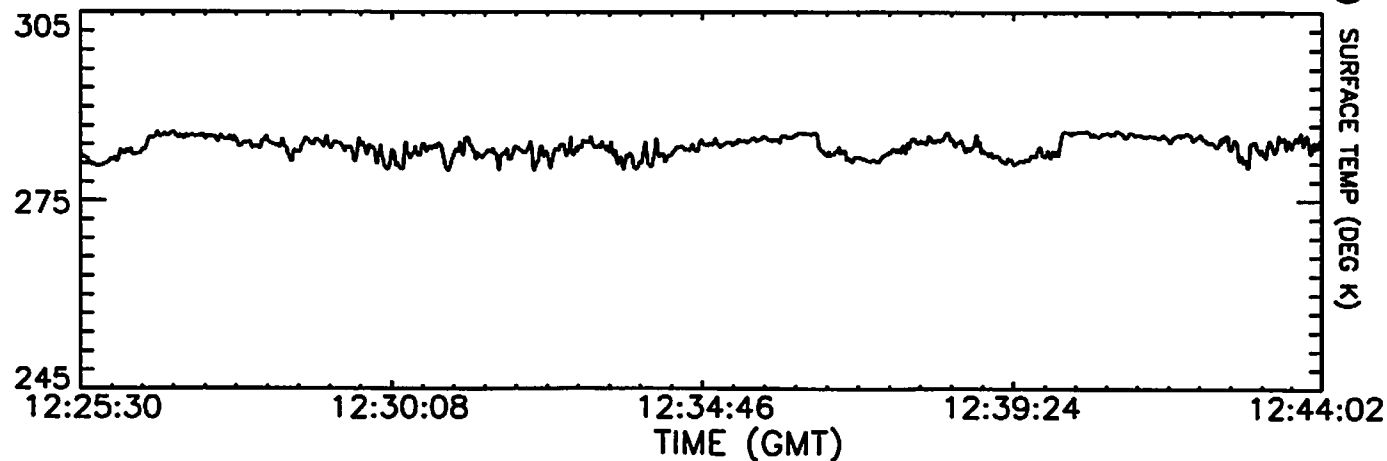
NON-DEICED TRUE TEMP (DEG K)

Parameter no. 525  
No. of obs 1113  
Mean 277.986  
Standard dev 0.182384  
Max value 278.439  
Min value 277.582



SURFACE TEMP (DEG K)

Parameter no. 537  
No. of obs 1113  
Mean 283.622  
Standard dev 1.51007  
Max value 286.229  
Min value 279.840



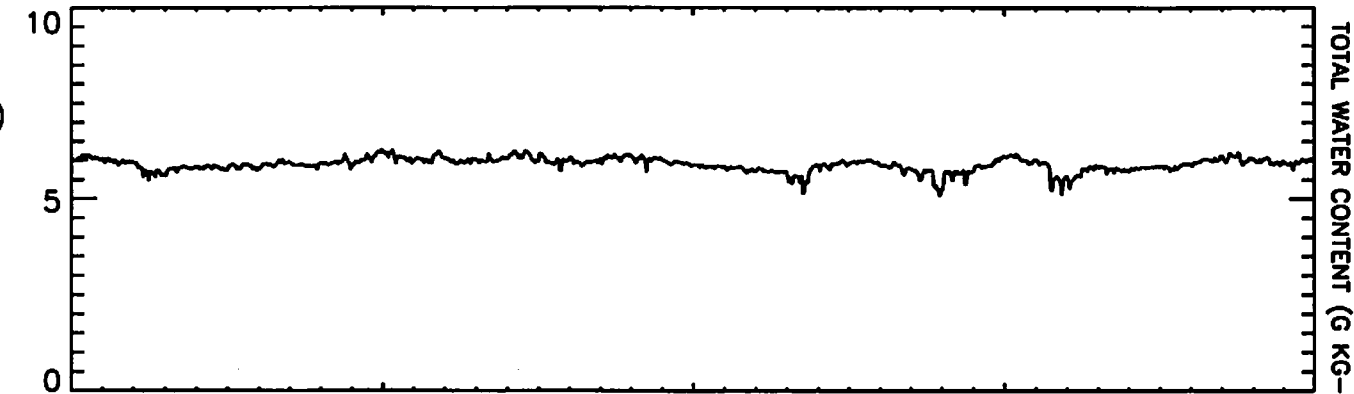
1 second averages

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Run no. R5

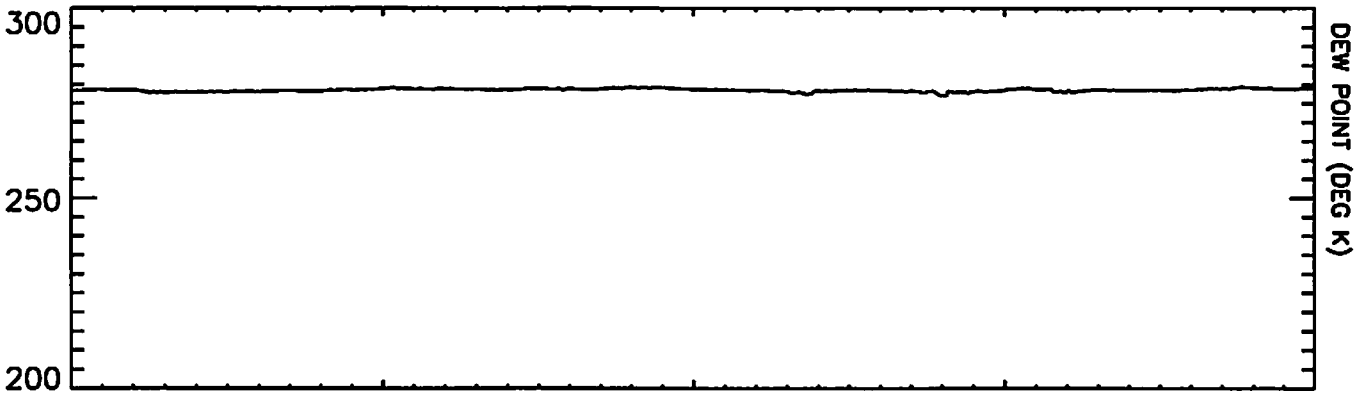
TOTAL WATER CONTENT (G KG-1)

Parameter no. 572  
No. of obs 1113  
Mean 5.89874  
Standard dev 0.173999  
Max value 6.28920  
Min value 5.09802



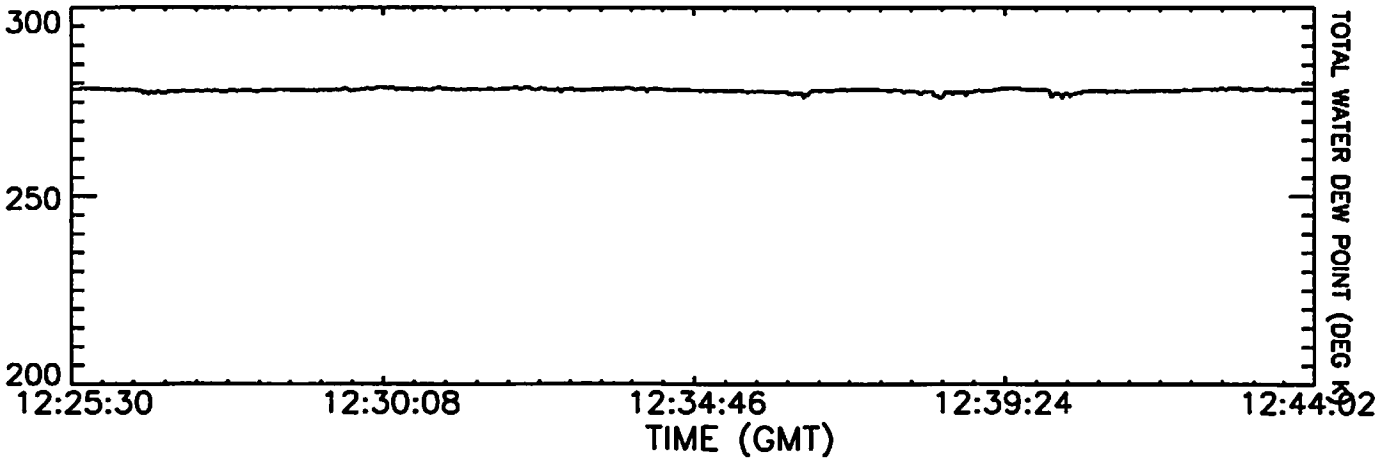
DEW POINT (DEG K)

Parameter no. 529  
No. of obs 1113  
Mean 278.542  
Standard dev 0.374063  
Max value 279.321  
Min value 277.095



TOTAL WATER DEW POINT (DEG K)

Parameter no. 725  
No. of obs 1113  
Mean 278.191  
Standard dev 0.427593  
Max value 279.115  
Min value 276.127



1 second averages

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Run no. R5

J/W LWC (G KG-1)

Parameter no. 535  
No. of obs 1113  
Mean 0.190675  
Standard dev 4.817079e-02  
Max value 0.319304  
Min value 5.745691e-02

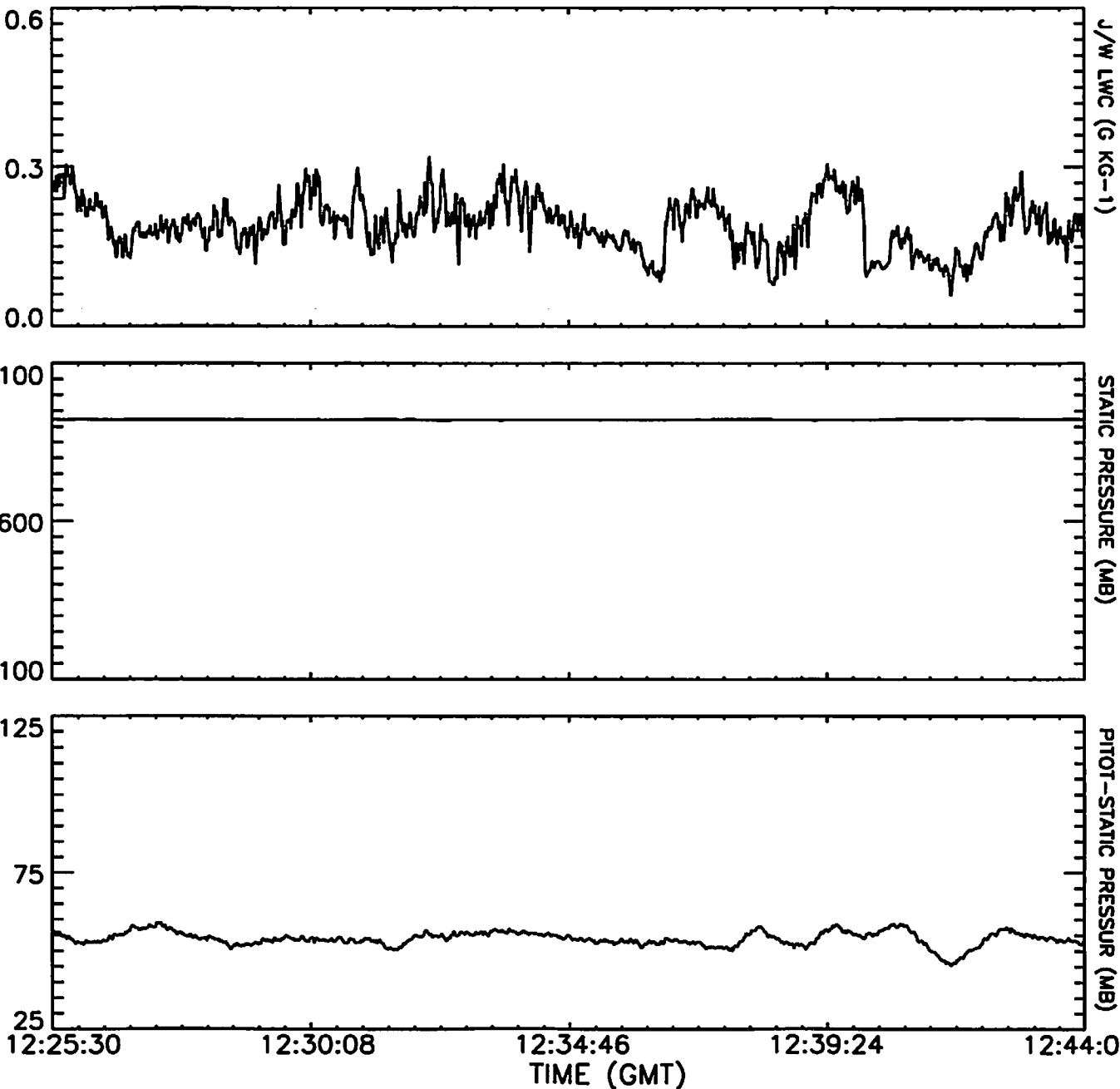
STATIC PRESSURE (MB)

Parameter no. 576  
No. of obs 1113  
Mean 922.538  
Standard dev 1.02167  
Max value 925.518  
Min value 920.933

PITOT-STATIC PRESSUR (MB)

Parameter no. 577  
No. of obs 1113  
Mean 54.0037  
Standard dev 2.21555  
Max value 59.1953  
Min value 45.5372

1 second averages

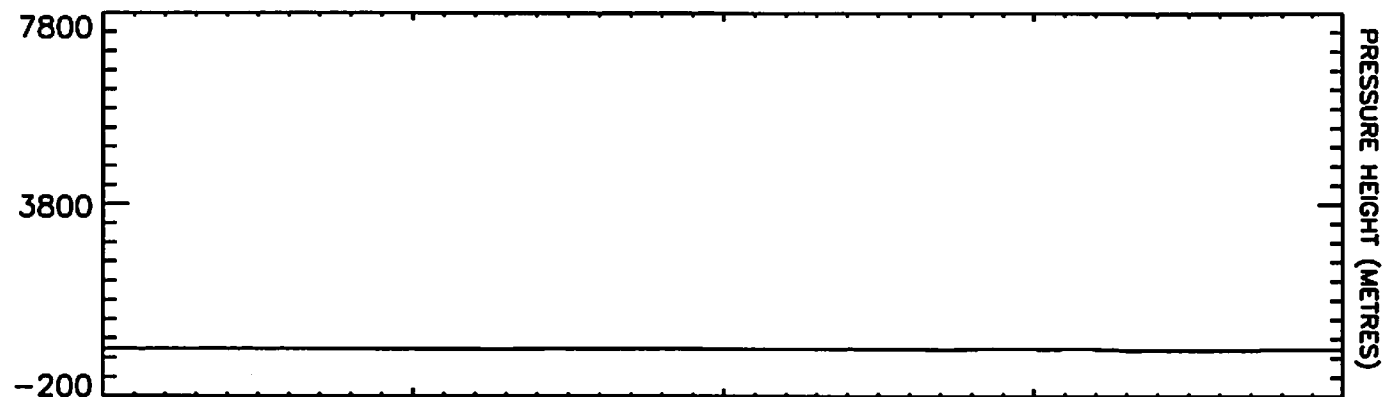


A462 26-JUN-96

Run no. R5

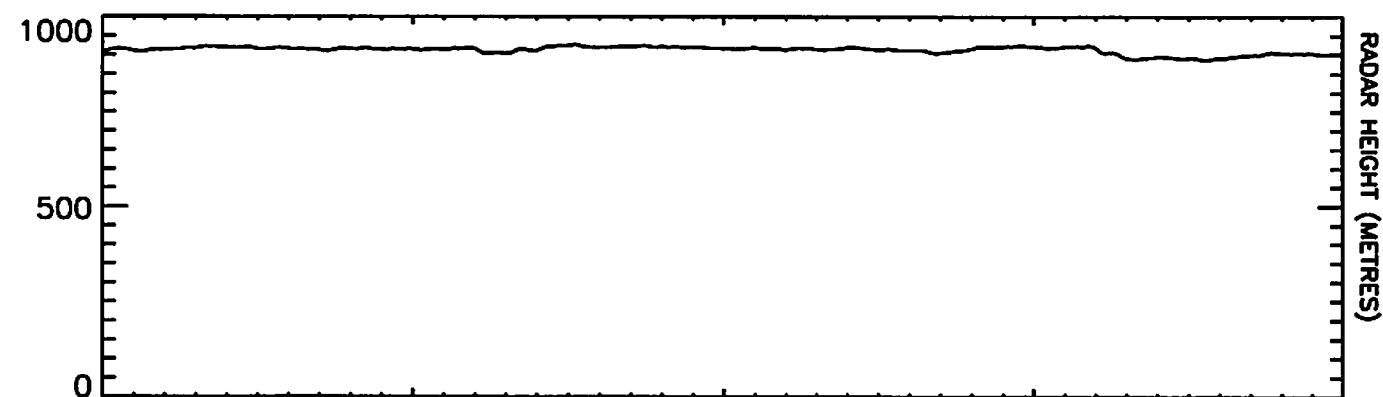
PRESSURE HEIGHT (METRES)

Parameter no. 578  
No. of obs 1113  
Mean 784.047  
Standard dev 9.17220  
Max value 798.470  
Min value 757.317



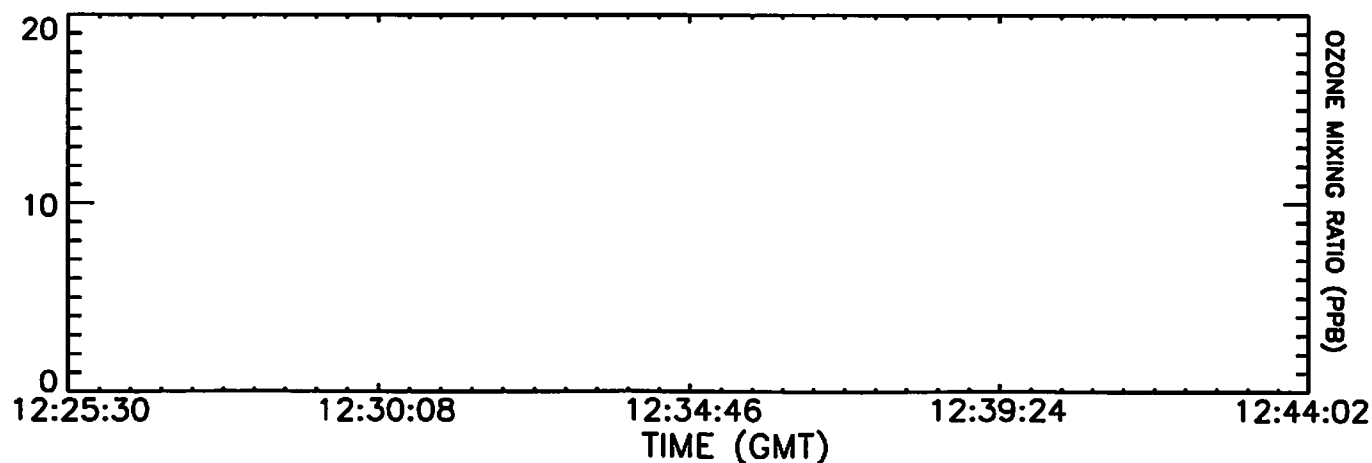
RADAR HEIGHT (METRES)

Parameter no. 575  
No. of obs 1113  
Mean 913.032  
Standard dev 9.06862  
Max value 927.235  
Min value 886.348



OZONE MIXING RATIO (PPB)

Parameter no. 574  
No. of obs 1113  
Mean 0.000000  
Standard dev 0.000000  
Max value 0.000000  
Min value 0.000000



1 second averages

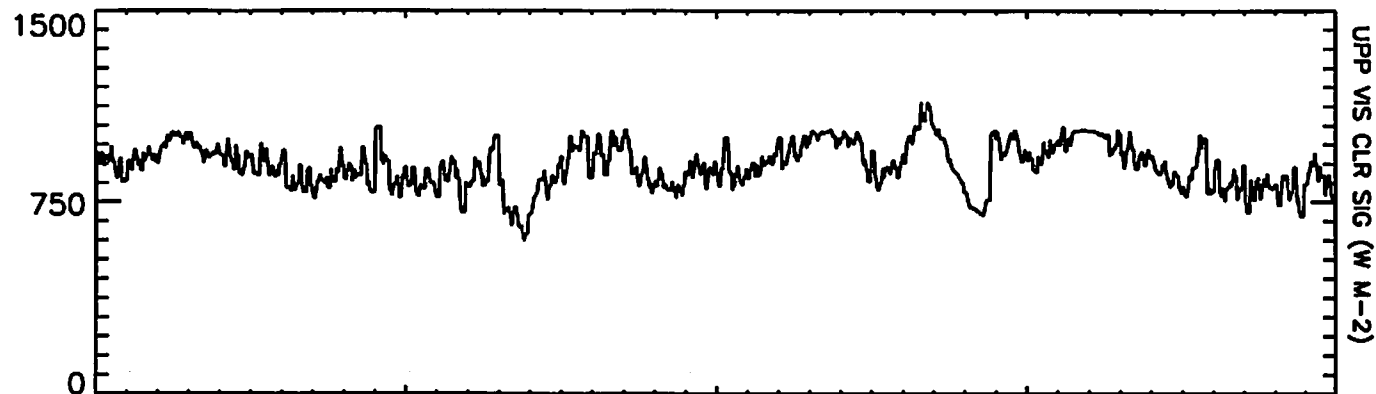


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Run no. R5

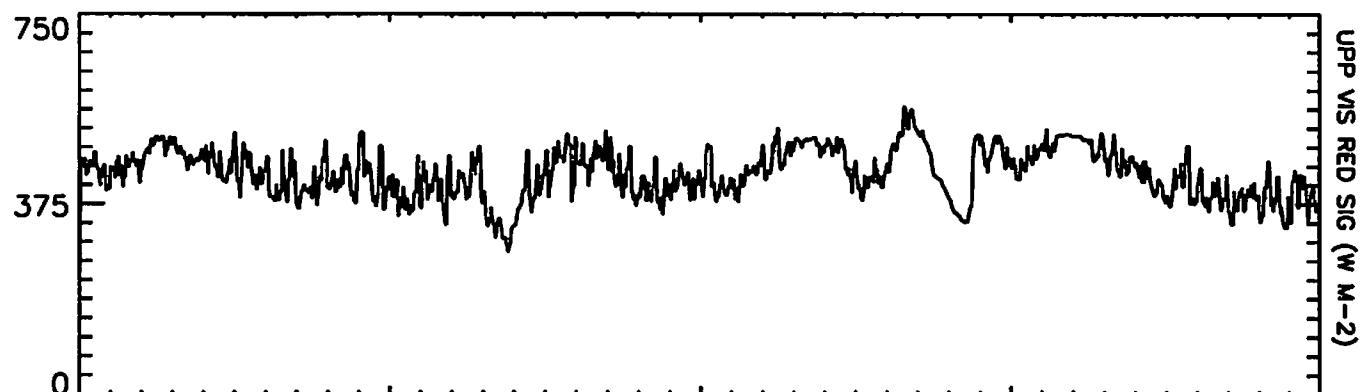
UPP VIS CLR SIG (W M-2)

Parameter no. 673  
No. of obs 1113  
Mean 891.840  
Standard dev 93.1375  
Max value 1140.62  
Min value 0.000000



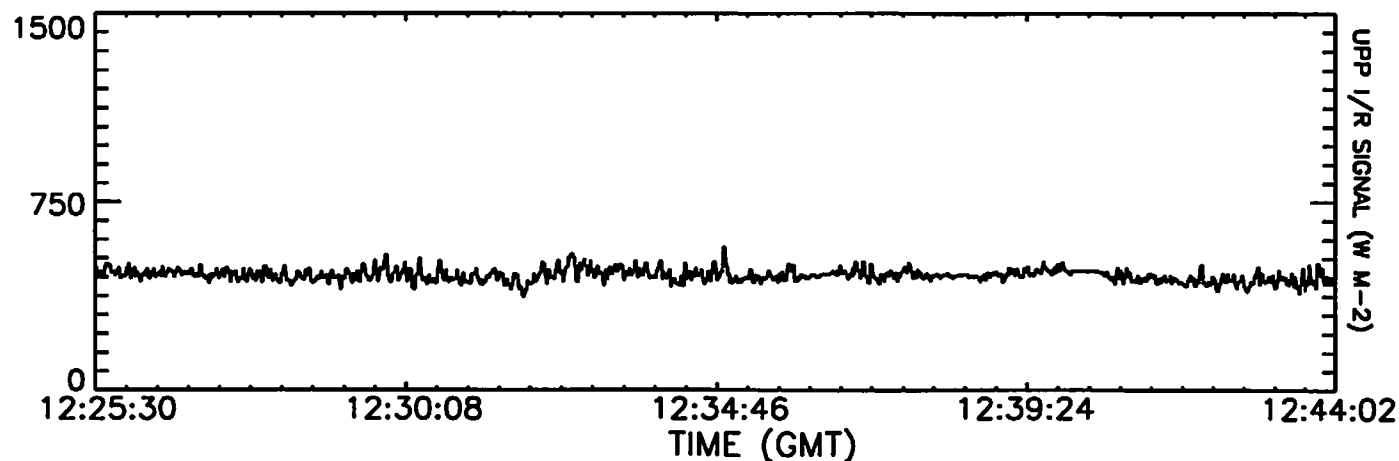
UPP VIS RED SIG (W M-2)

Parameter no. 674  
No. of obs 1113  
Mean 434.959  
Standard dev 51.2532  
Max value 568.854  
Min value 0.000000



UPP I/R SIGNAL (W M-2)

Parameter no. 675  
No. of obs 1113  
Mean 457.952  
Standard dev 24.8706  
Max value 570.606  
Min value 373.448



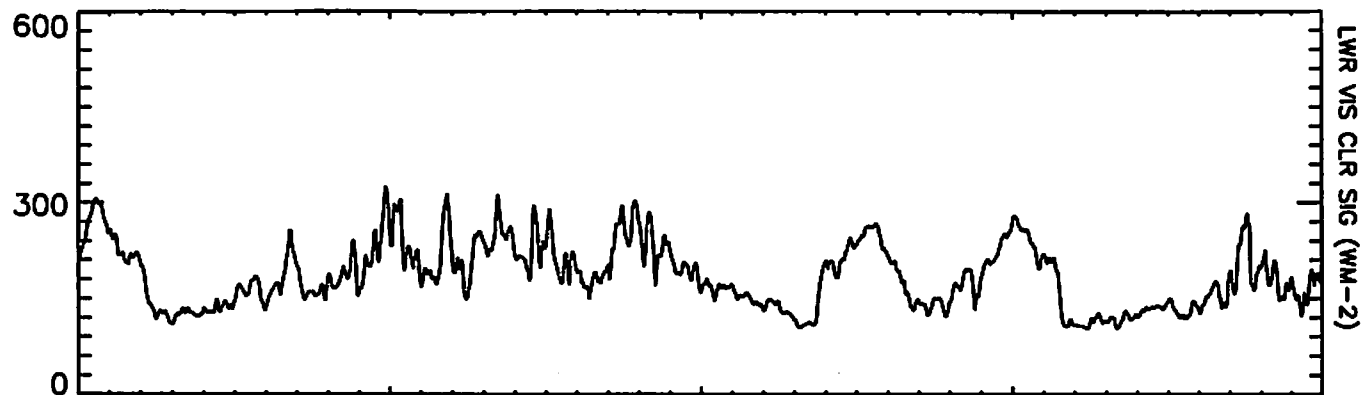
1 second overages

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Run no. R5

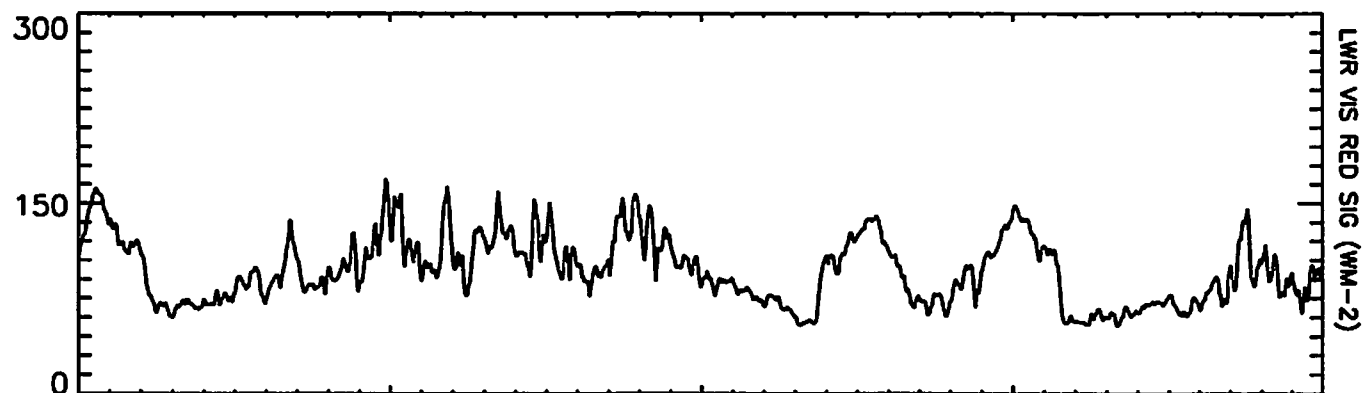
LWR VIS CLR SIG (WM-2)

Parameter no. 682  
No. of obs 1113  
Mean 184.842  
Standard dev 49.9124  
Max value 324.597  
Min value 103.226



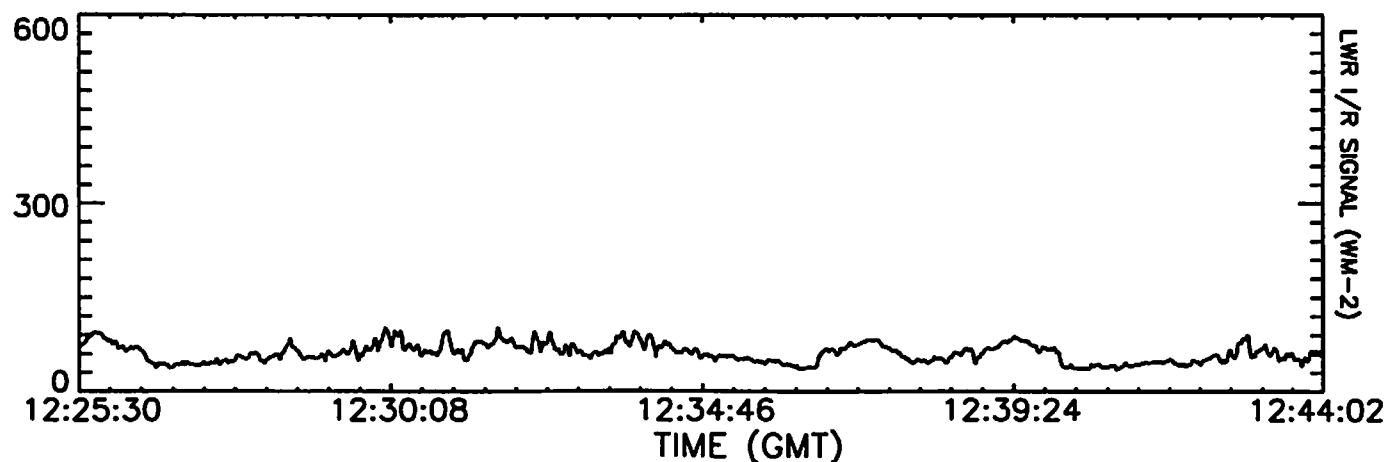
LWR VIS RED SIG (WM-2)

Parameter no. 683  
No. of obs 1113  
Mean 96.9093  
Standard dev 25.9740  
Max value 169.536  
Min value 53.4434



LWR I/R SIGNAL (WM-2)

Parameter no. 684  
No. of obs 1113  
Mean 61.4355  
Standard dev 14.6778  
Max value 102.760  
Min value 35.3087



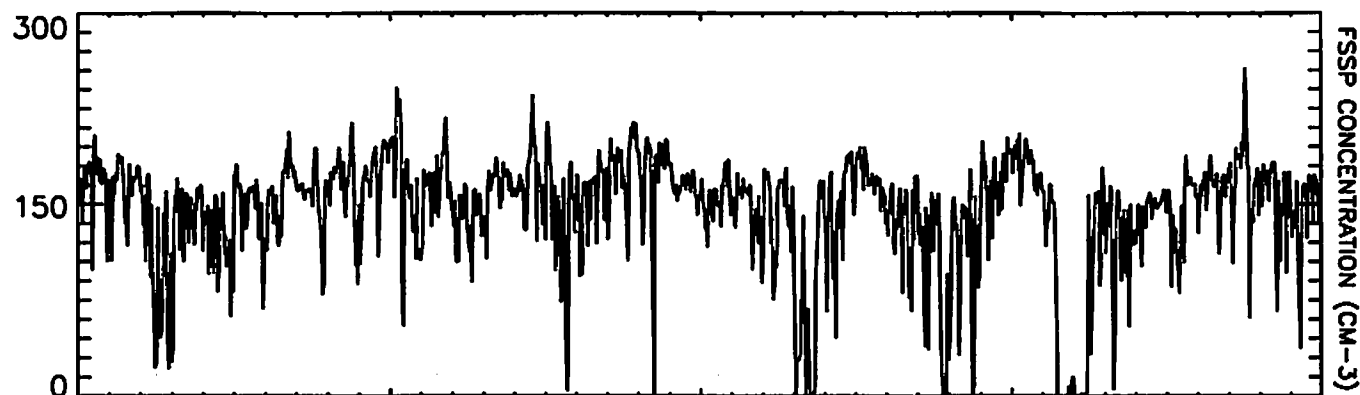
1 second averages

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Run no. R5

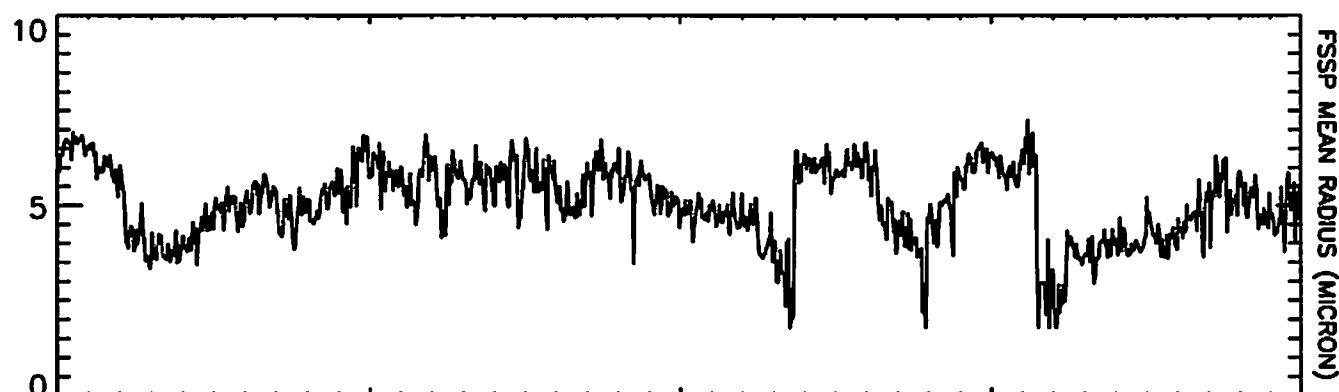
FSSP CONCENTRATION (CM-3)

Parameter no. 901  
No. of obs 1113  
Mean 145.238  
Standard dev 45.2669  
Max value 256.963  
Min value 0.100601



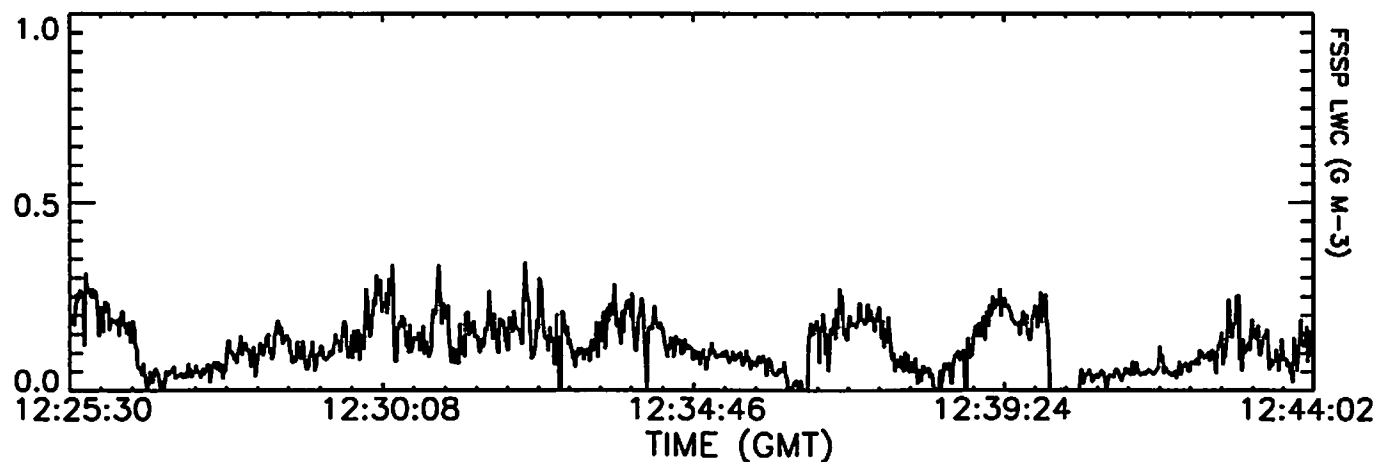
FSSP MEAN RADIUS (MICRON)

Parameter no. 902  
No. of obs 1113  
Mean 5.06449  
Standard dev 0.991383  
Max value 7.27838  
Min value 1.75000



FSSP LWC (G M-3)

Parameter no. 903  
No. of obs 1113  
Mean 0.118864  
Standard dev 6.885020e-02  
Max value 0.342055  
Min value 5.310489e-06



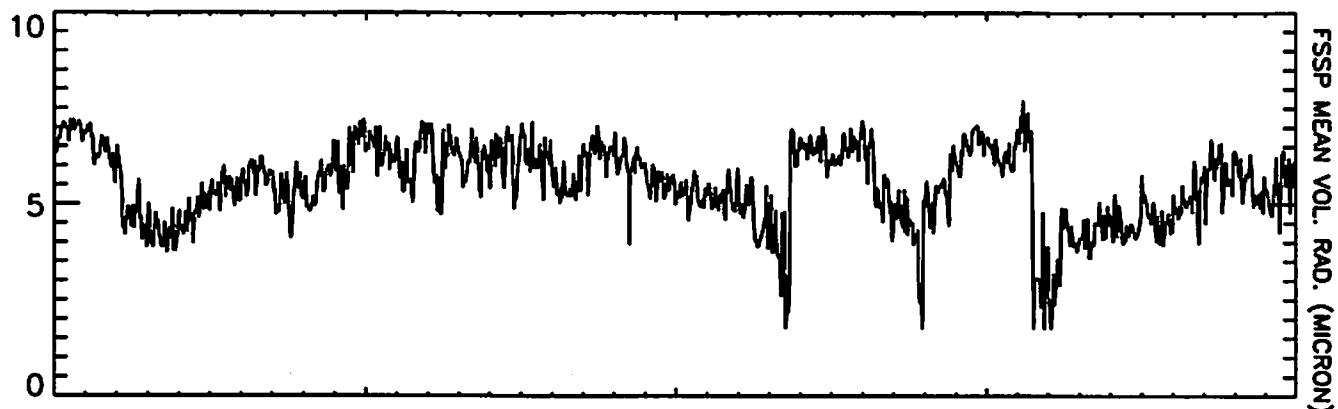
1 second averages

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Run no. R5

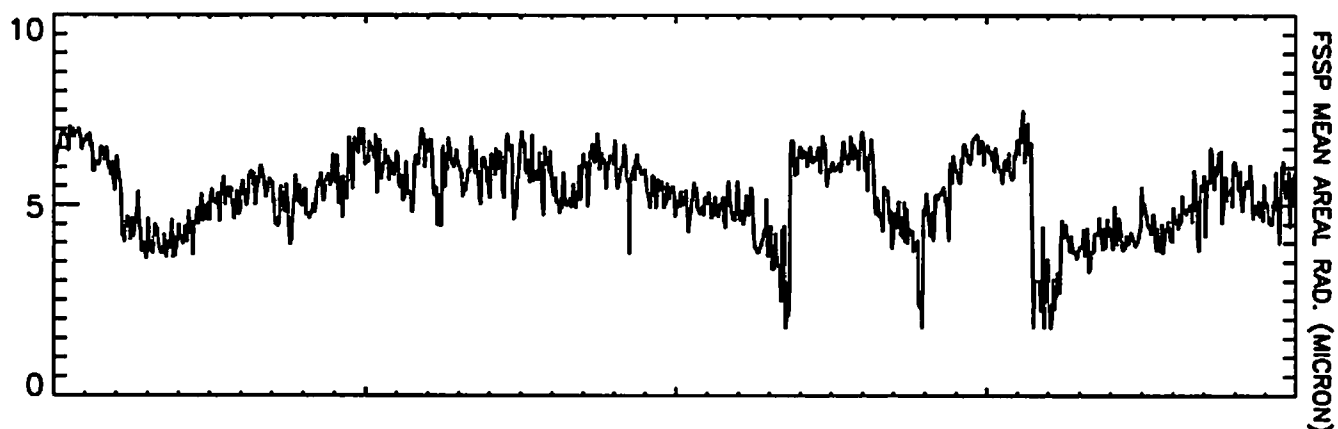
FSSP MEAN VOL. RAD. (MICRON)

Parameter no. 904  
No. of obs 1113  
Mean 5.52668  
Standard dev 1.00441  
Max value 7.70904  
Min value 1.75025



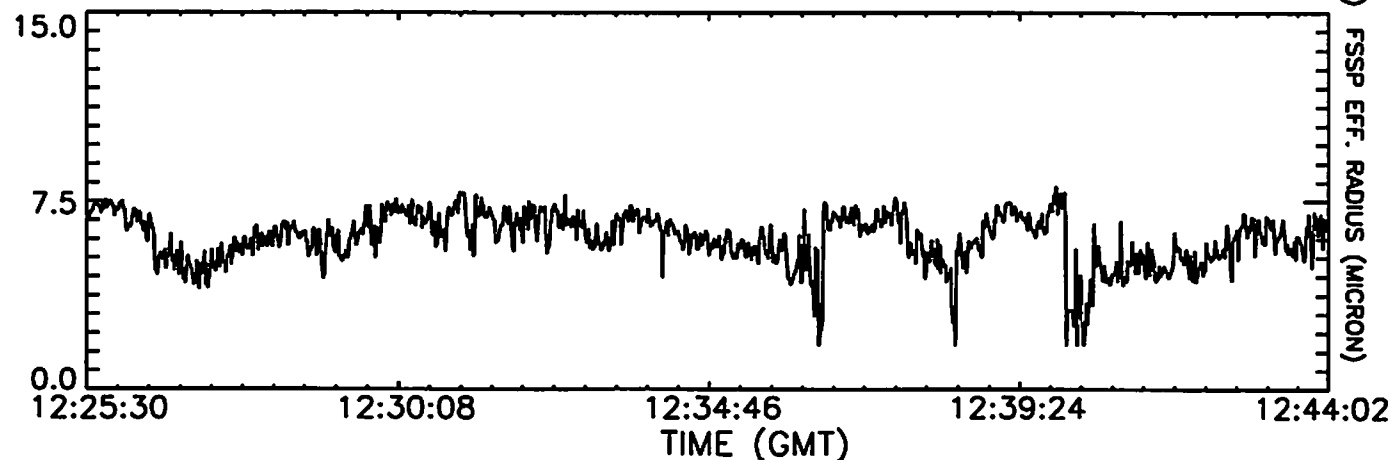
FSSP MEAN AREAL RAD. (MICRON)

Parameter no. 905  
No. of obs 1113  
Mean 5.29832  
Standard dev 1.00564  
Max value 7.51060  
Min value 1.74999



FSSP EFF. RADIUS (MICRON)

Parameter no. 906  
No. of obs 1113  
Mean 6.01631  
Standard dev 1.01612  
Max value 8.11891  
Min value 1.75008



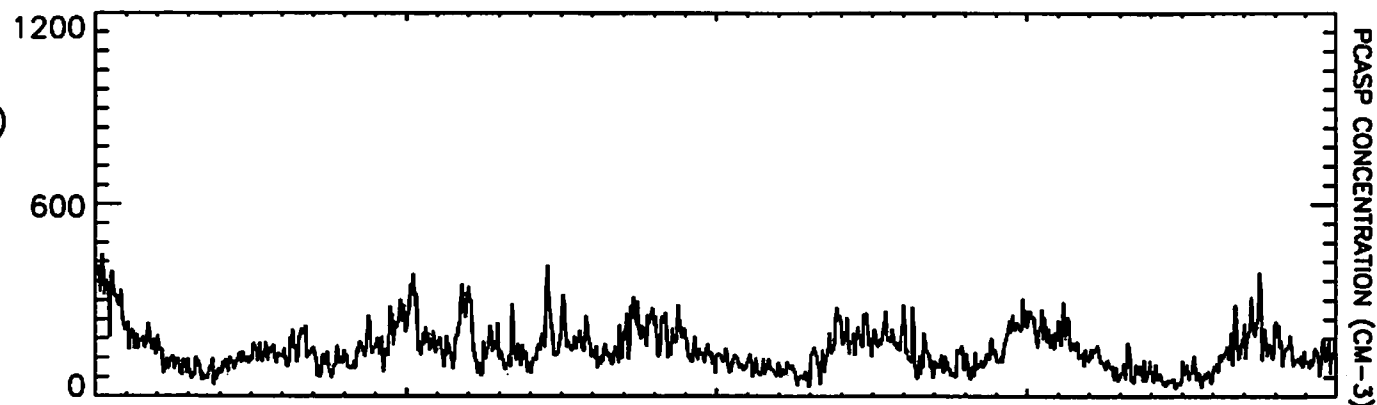
1 second averages

A462 26-JUN-96

Run no. R5

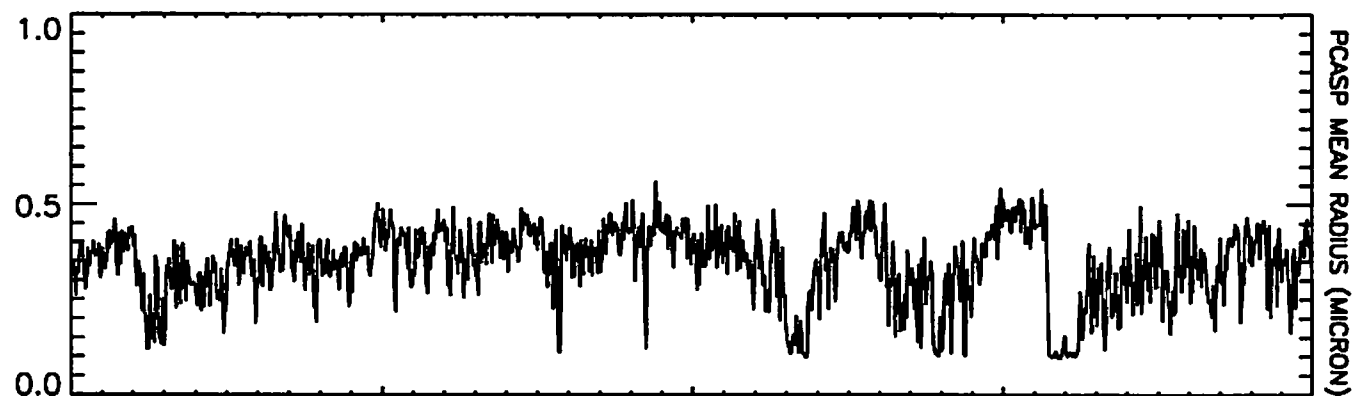
PCASP CONCENTRATION (CM-3)

Parameter no. 919  
No. of obs 1113  
Mean 147.526  
Standard dev 68.7854  
Max value 443.415  
Min value 25.0171



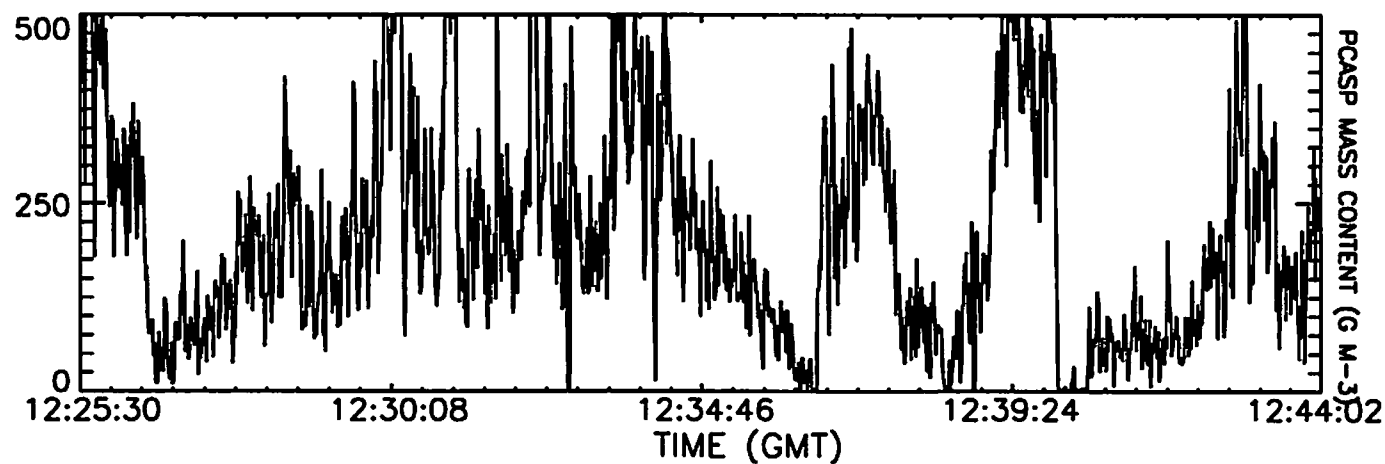
PCASP MEAN RADIUS (MICRON)

Parameter no. 920  
No. of obs 1113  
Mean 0.344832  
Standard dev 9.549425e-02  
Max value 0.561702  
Min value 9.460798e-02



PCASP MASS CONTENT (G M-3)

Parameter no. 921  
No. of obs 1113  
Mean 212.056  
Standard dev 150.872  
Max value 848.208  
Min value 0.477557



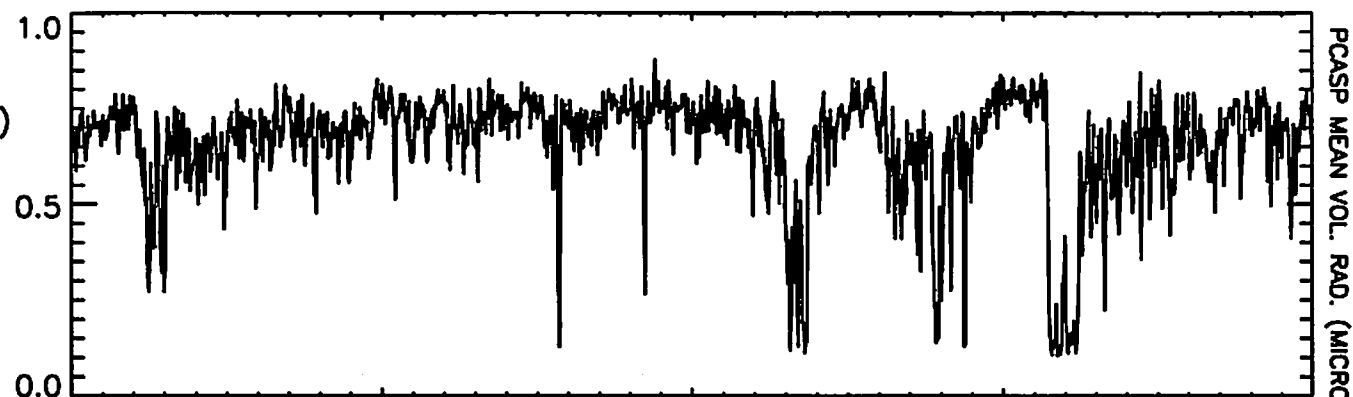
1 second averages

A462 26-JUN-96

Run no. R5

PCASP MEAN VOL. RAD. (MICRON)

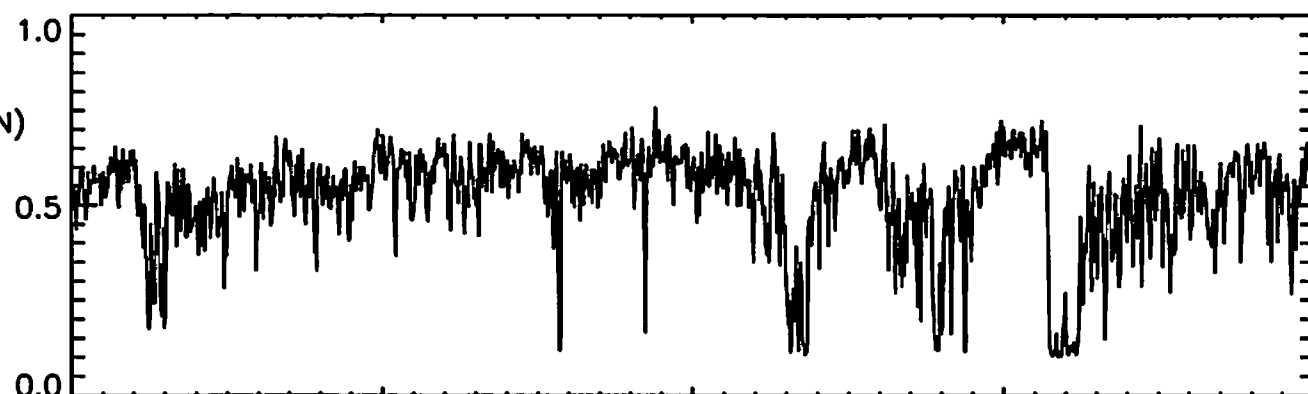
Parameter no. 922  
No. of obs 1113  
Mean 0.662285  
Standard dev 0.141577  
Max value 0.880623  
Min value 0.104290



PCASP MEAN VOL. RAD. (MICRON)

PCASP MEAN AREAL RAD (MICRON)

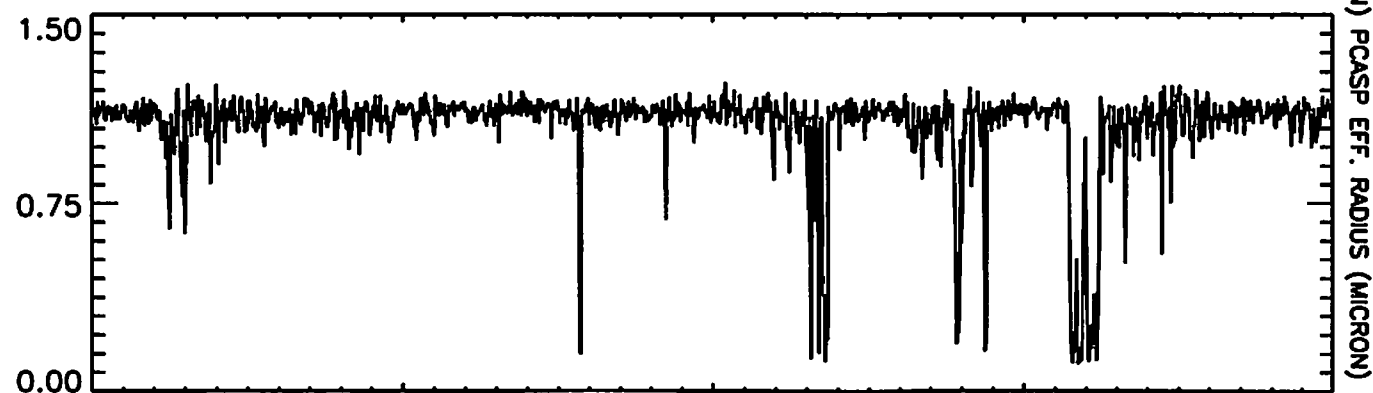
Parameter no. 923  
No. of obs 1113  
Mean 0.524896  
Standard dev 0.129188  
Max value 0.758647  
Min value 0.100506



PCASP MEAN AREAL RAD (MICRON)

PCASP EFF. RADIUS (MICRON)

Parameter no. 924  
No. of obs 1113  
Mean 1.06395  
Standard dev 0.177028  
Max value 1.23146  
Min value 0.111317



PCASP EFF. RADIUS (MICRON)

12:25:30 12:30:08 12:34:46 12:39:24 12:44:02

TIME (GMT)

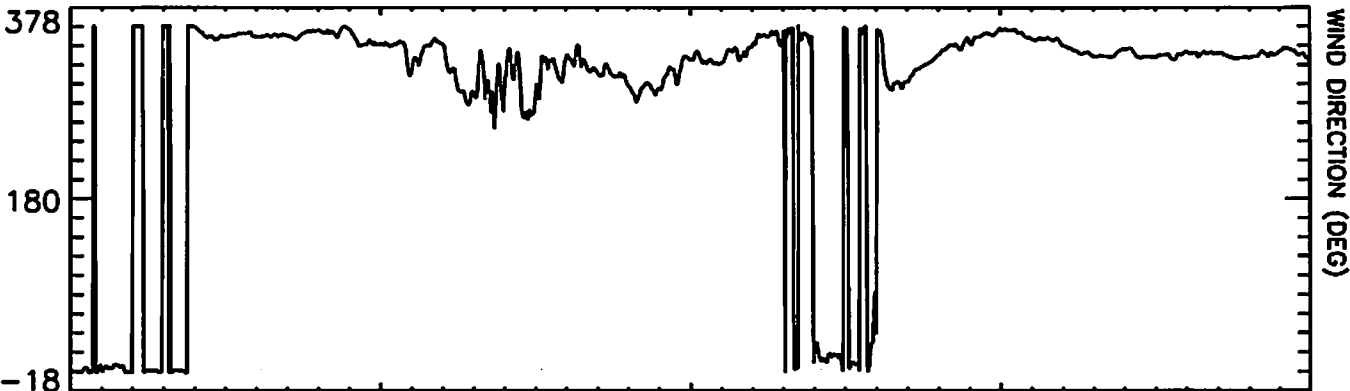
1 second averages

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Run no. R6

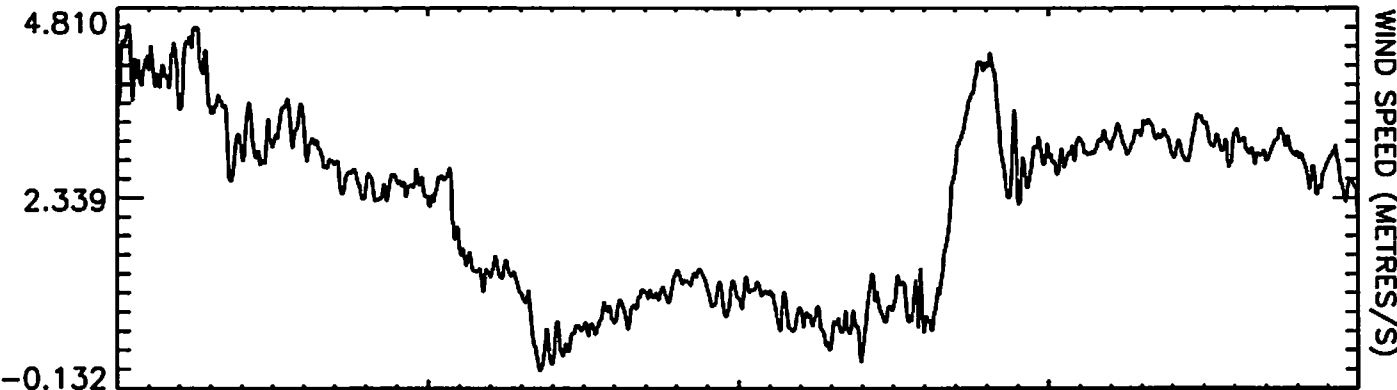
WIND DIRECTION (DEG)

No. of obs 1089  
Mean 289.899  
Standard dev 108.521  
Max value 359.966  
Min value 5.776979e-02



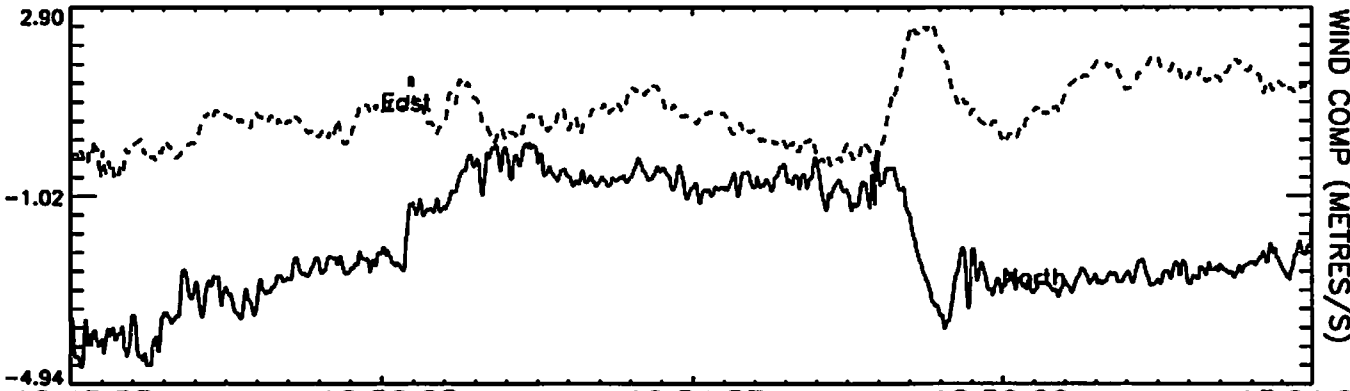
WIND SPEED (METRES/S)

No. of obs 1089  
Mean 2.23914  
Standard dev 1.13923  
Max value 4.58581  
Min value 9.222022e-02



WIND COMP (METRES/s)

Parameter no. 714,715  
No. of obs 1089  
Mean north -1.99198  
Stan dev north 1.17920  
Max north 9.682655e-02  
Min north -4.58499  
Mean east -1.99198  
Stan dev east 1.17920  
Max east 9.682655e-02  
Min east -4.58499

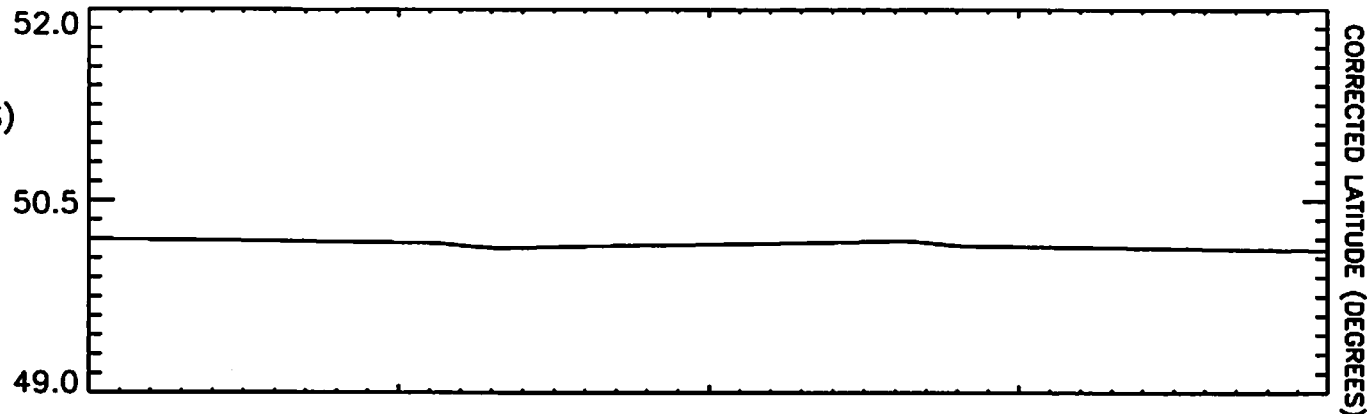


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Run no. R6

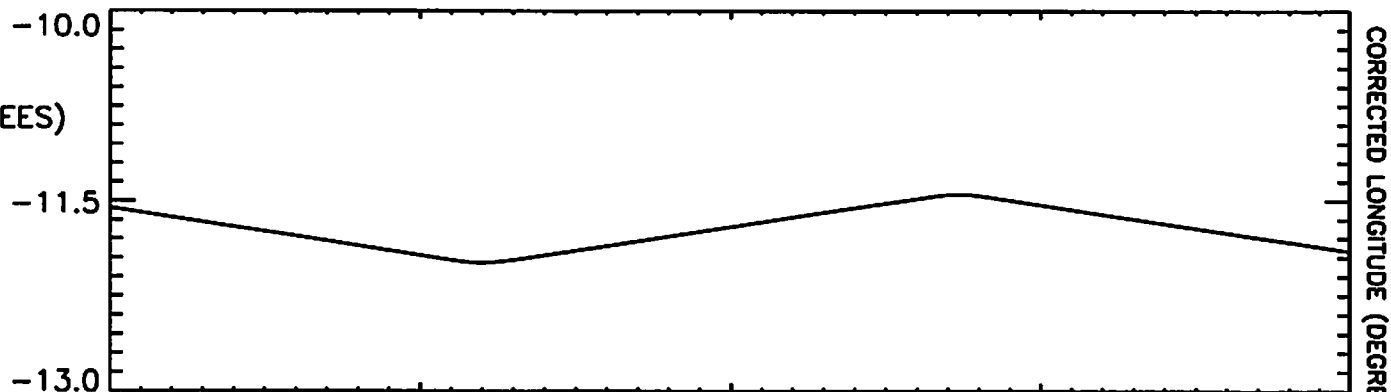
CORRECTED LATITUDE (DEGREES)

Parameter no. 730  
No. of obs 1089  
Mean 50.1564  
Standard dev 2.439452e-02  
Max value 50.2003  
Min value 50.1105



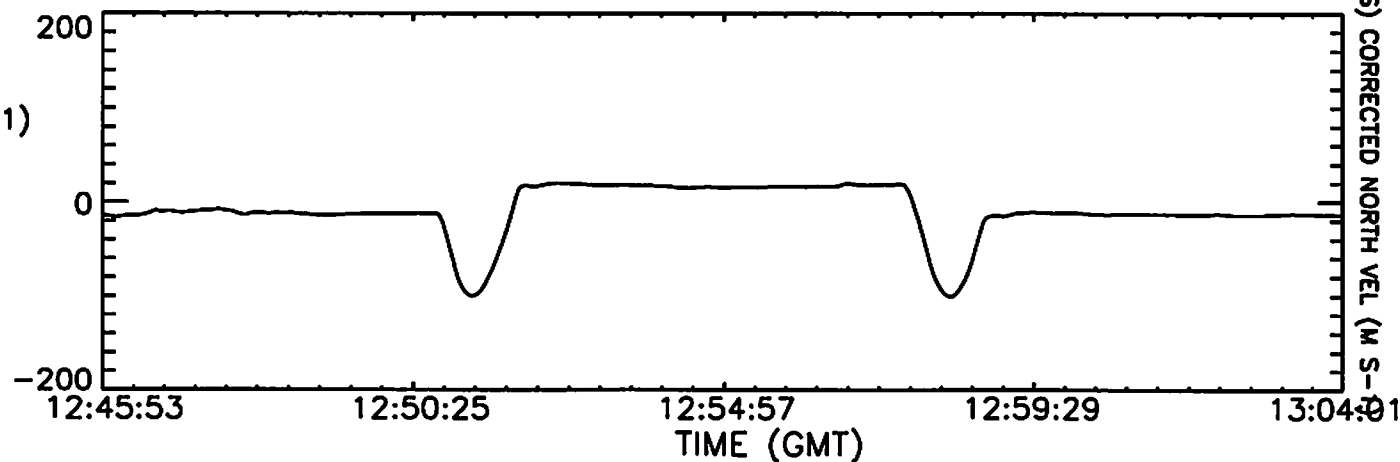
CORRECTED LONGITUDE (DEGREES)

Parameter no. 731  
No. of obs 1089  
Mean -11.7212  
Standard dev 0.151827  
Max value -11.4491  
Min value -11.9895



CORRECTED NORTH VEL (M S-1)

Parameter no. 735  
No. of obs 1089  
Mean -9.16354  
Standard dev 26.5585  
Max value 20.0914  
Min value -100.455



1 second averages

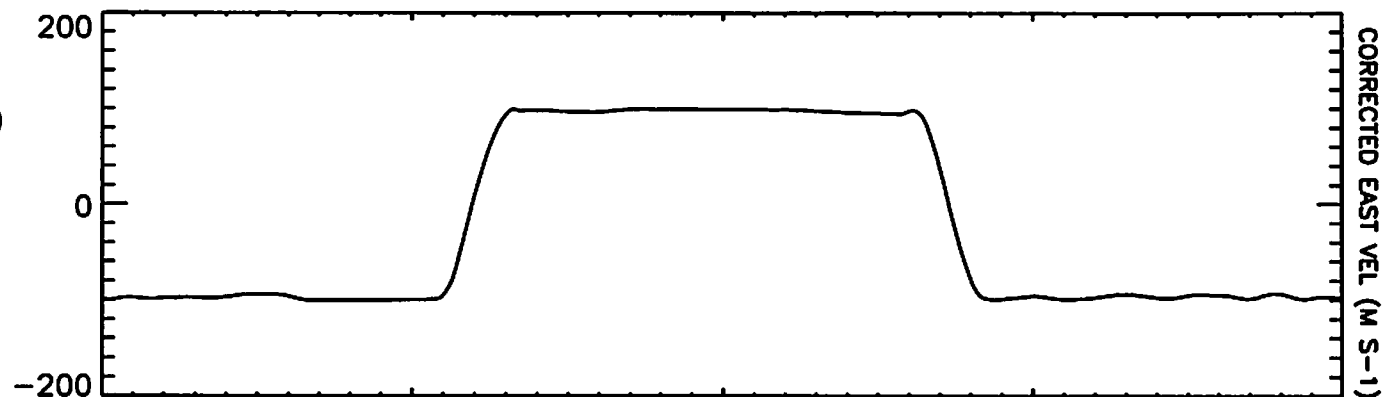


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Run no. R6

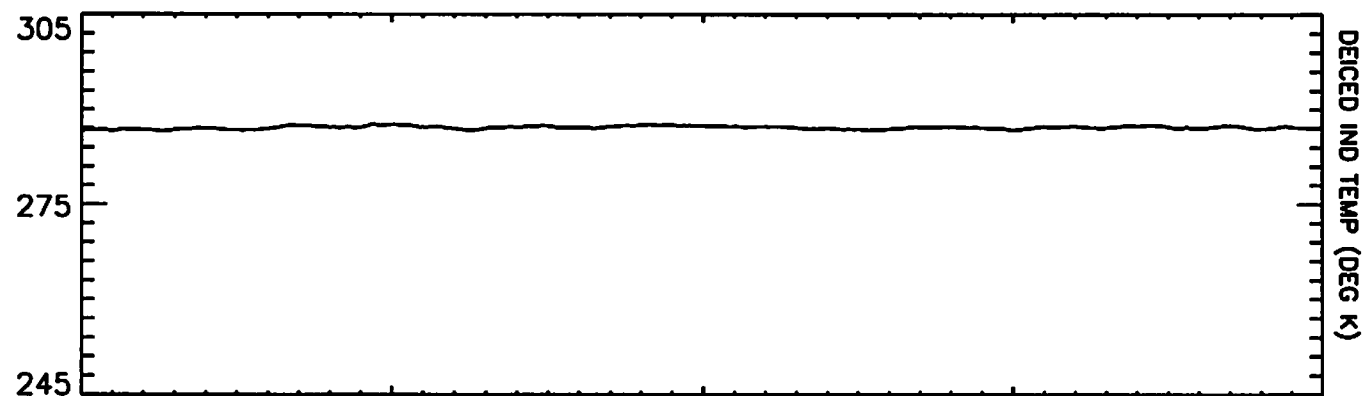
CORRECTED EAST VEL (M S-1)

Parameter no. 736  
No. of obs 1089  
Mean -22.6398  
Standard dev 91.9130  
Max value 99.6460  
Min value -100.672



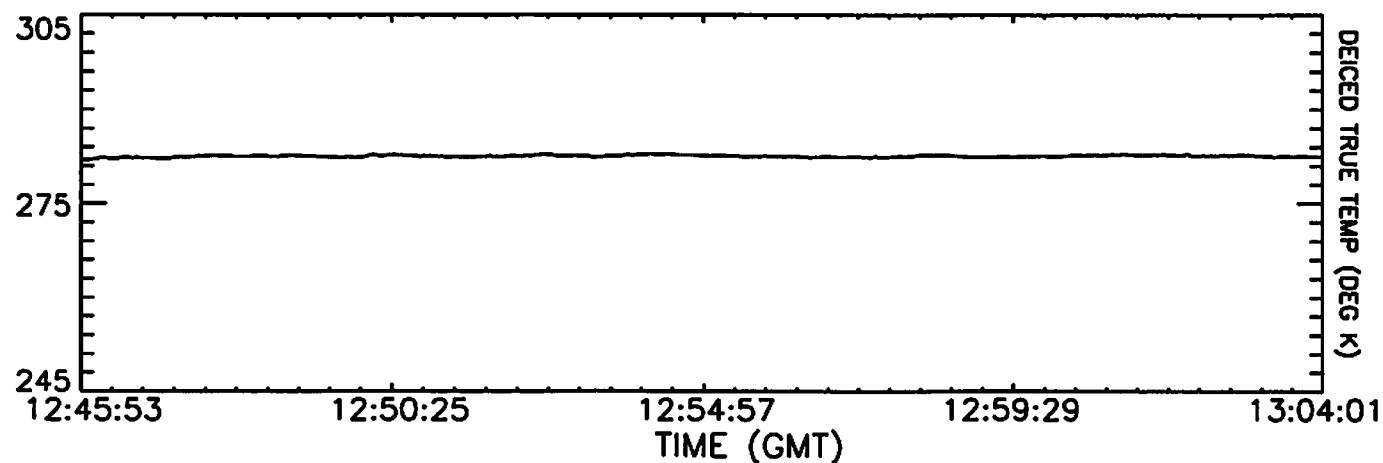
DEICED IND TEMP (DEG K)

Parameter no. 519  
No. of obs 1089  
Mean 287.175  
Standard dev 0.238320  
Max value 287.674  
Min value 286.600



DEICED TRUE TEMP (DEG K)

Parameter no. 520  
No. of obs 1089  
Mean 282.560  
Standard dev 0.167278  
Max value 282.931  
Min value 281.958



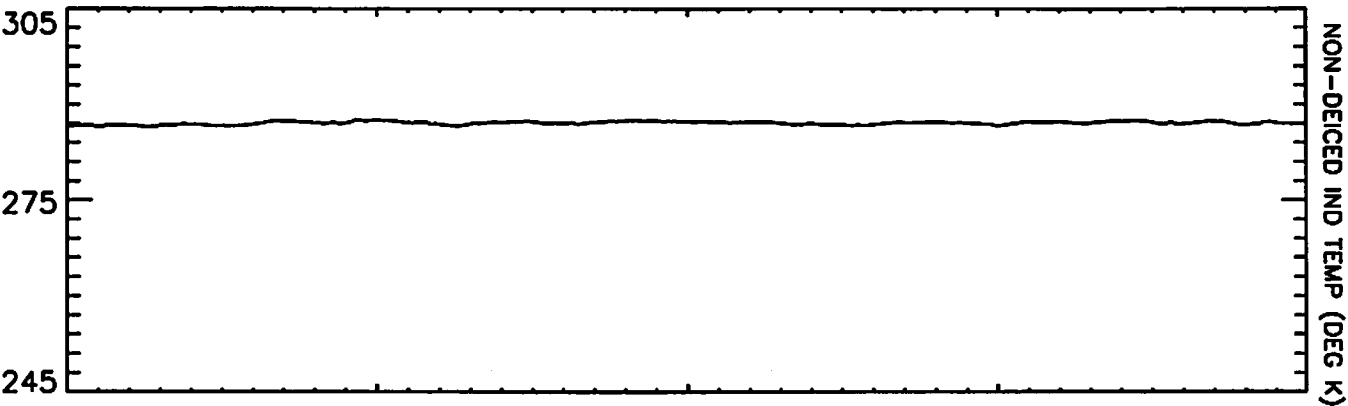
1 second averages

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Run no. R6

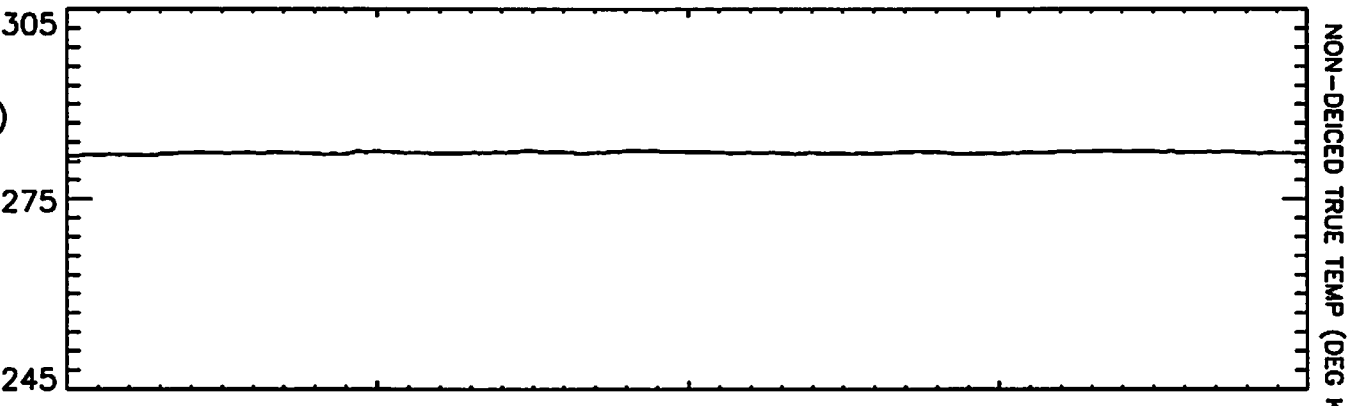
NON-DEICED IND TEMP (DEG K)

Parameter no. 524  
No. of obs 1089  
Mean 287.080  
Standard dev 0.242143  
Max value 287.582  
Min value 286.492



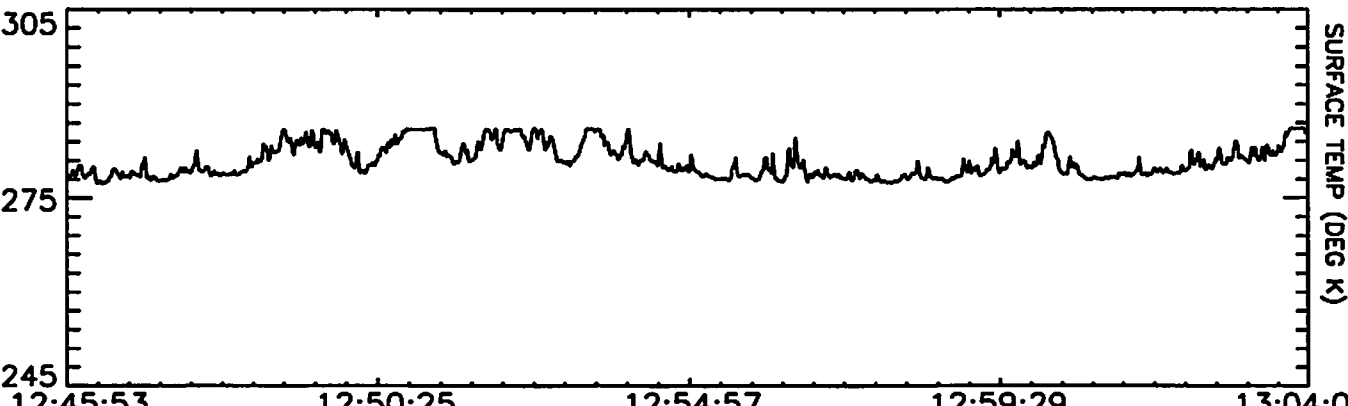
NON-DEICED TRUE TEMP (DEG K)

Parameter no. 525  
No. of obs 1089  
Mean 282.328  
Standard dev 0.169255  
Max value 282.696  
Min value 281.737



SURFACE TEMP (DEG K)

Parameter no. 537  
No. of obs 1089  
Mean 280.820  
Standard dev 2.56280  
Max value 286.168  
Min value 277.269



1 second averages

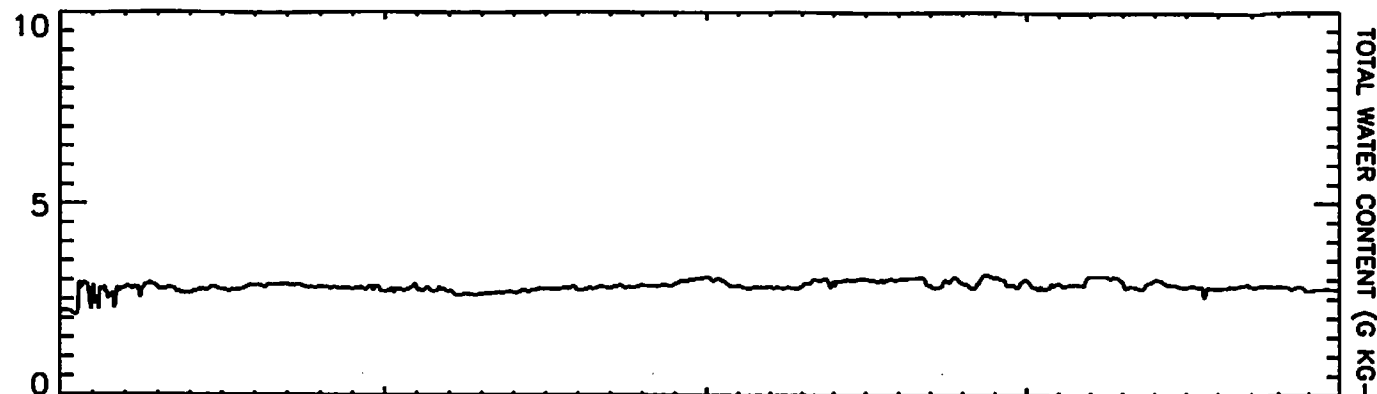
TIME (GMT)

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Run no. R6

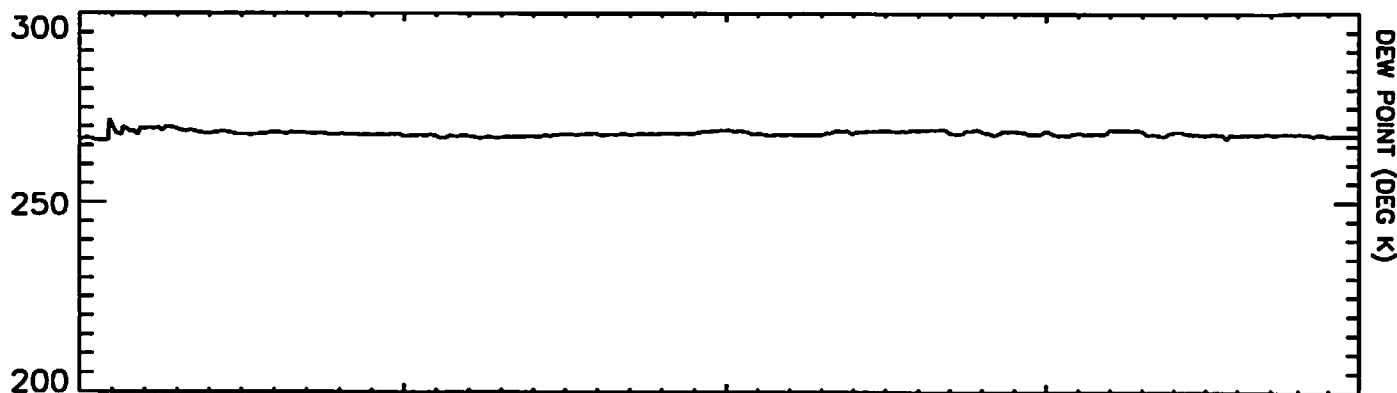
TOTAL WATER CONTENT (G KG-1)

Parameter no. 572  
No. of obs 1089  
Mean 2.83568  
Standard dev 0.144947  
Max value 3.15009  
Min value 2.10448



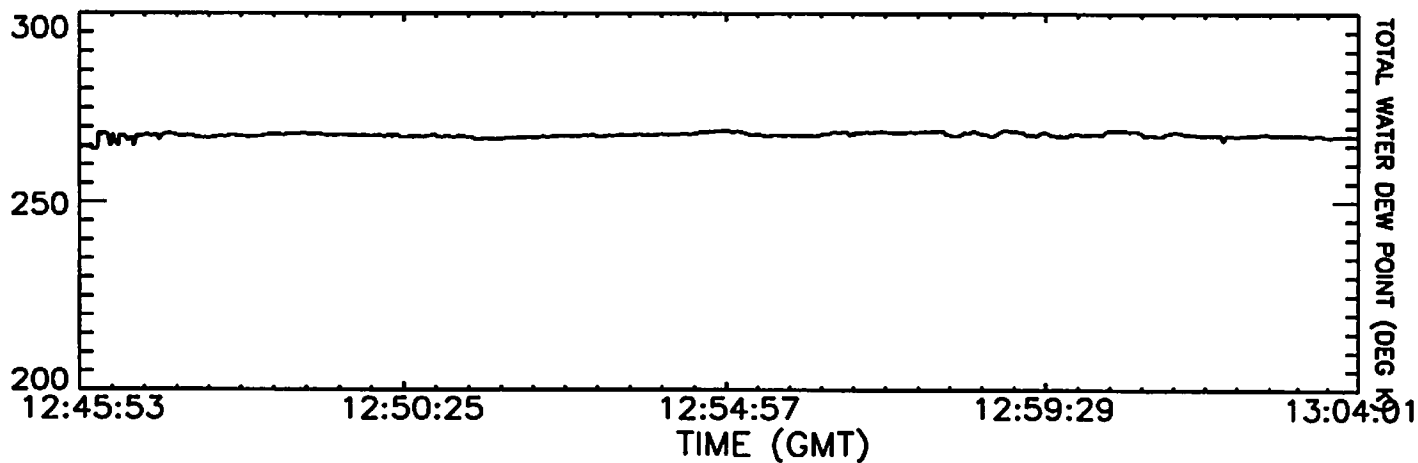
DEW POINT (DEG K)

Parameter no. 529  
No. of obs 1089  
Mean 268.270  
Standard dev 0.634935  
Max value 271.835  
Min value 266.410



TOTAL WATER DEW POINT (DEG K)

Parameter no. 725  
No. of obs 1089  
Mean 267.852  
Standard dev 0.700999  
Max value 269.249  
Min value 264.007



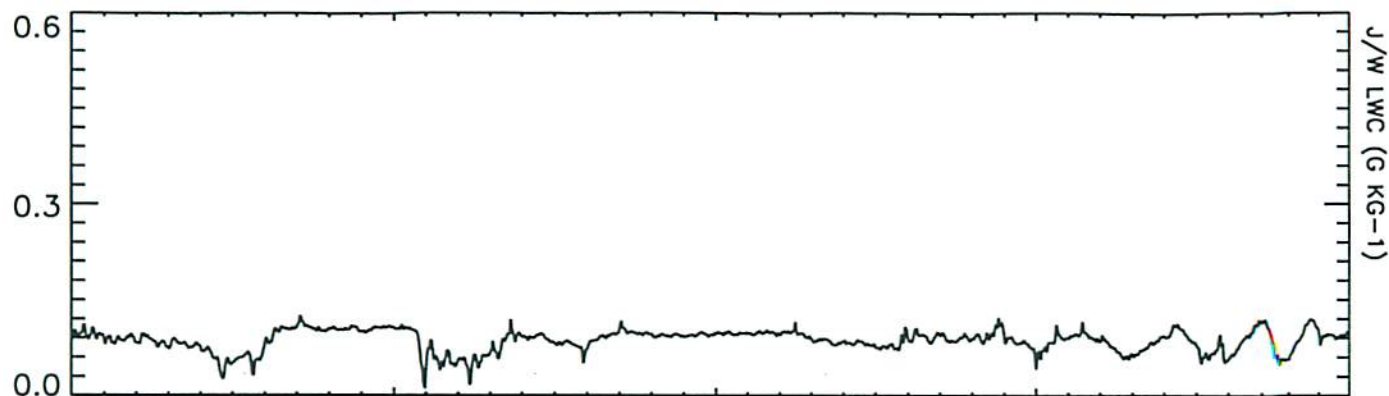
1 second averages

A462 26-JUN-96

Run no. R6

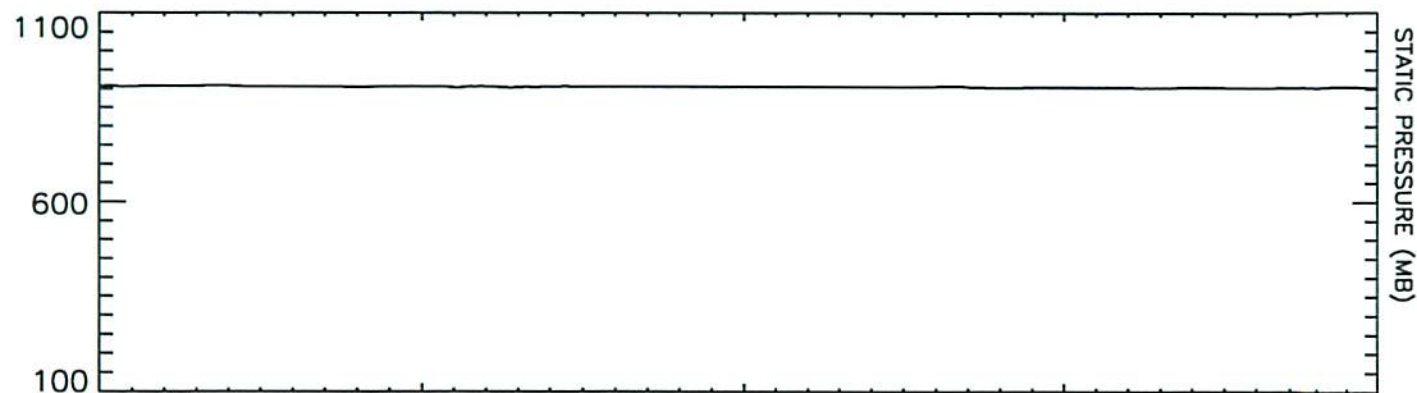
J/W LWC (G KG-1)

Parameter no. 535  
No. of obs 1089  
Mean  $8.647311\text{e-}02$   
Standard dev  $1.681818\text{e-}02$   
Max value 0.124752  
Min value  $1.098520\text{e-}02$



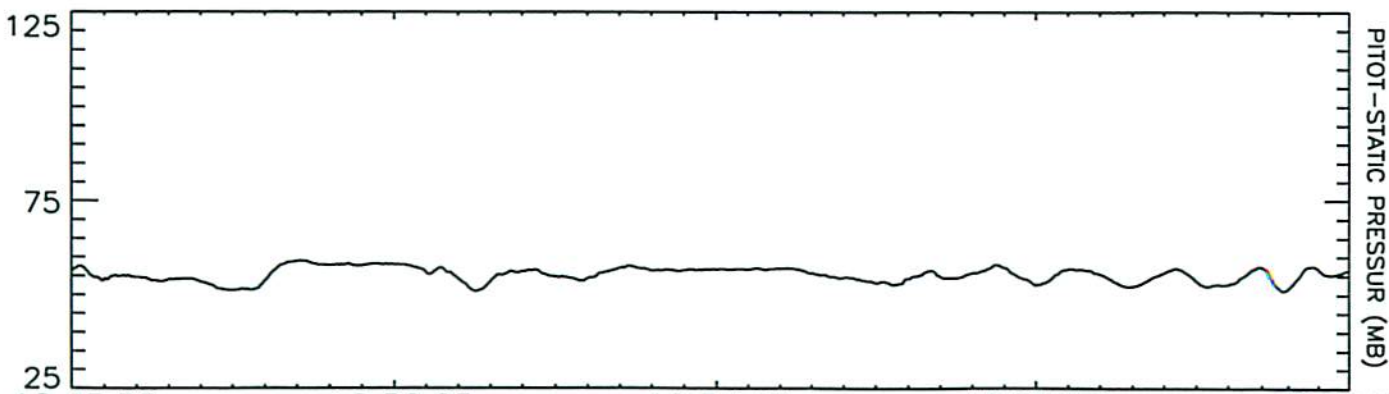
STATIC PRESSURE (MB)

Parameter no. 576  
No. of obs 1089  
Mean 905.367  
Standard dev 1.08655  
Max value 908.395  
Min value 902.731



PITOT-STATIC PRESSUR (MB)

Parameter no. 577  
No. of obs 1089  
Mean 55.3134  
Standard dev 1.87544  
Max value 59.0802  
Min value 50.8654



12:45:53 12:50:25 12:54:57 12:59:29 13:04:01  
TIME (GMT)

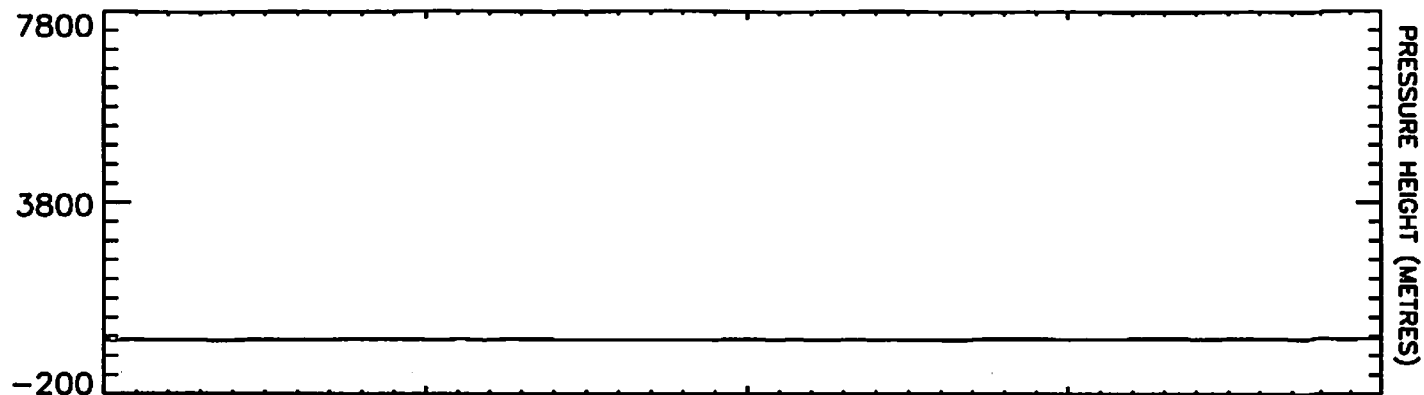
1 second averages

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Run no. R6

PRESSURE HEIGHT (METRES)

Parameter no. 578  
No. of obs 1089  
Mean 939.433  
Standard dev 9.90833  
Max value 963.496  
Min value 911.856



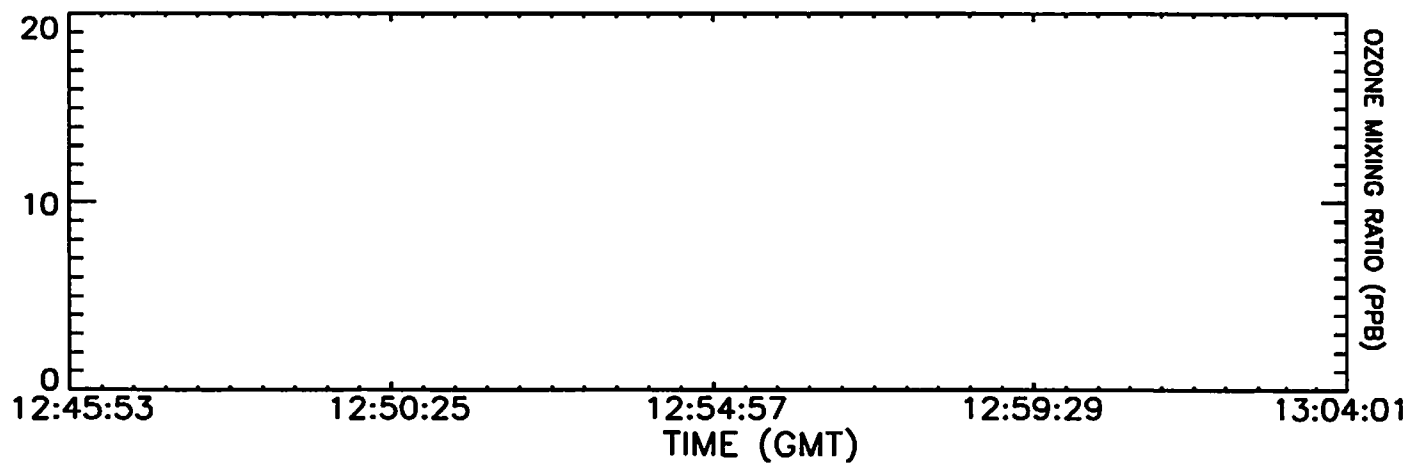
RADAR HEIGHT (METRES)

Parameter no. 575  
No. of obs 1089  
Mean 1067.63  
Standard dev 9.68024  
Max value 1091.53  
Min value 1040.98



OZONE MIXING RATIO (PPB)

Parameter no. 574  
No. of obs 1089  
Mean 0.000000  
Standard dev 0.000000  
Max value 0.000000  
Min value 0.000000



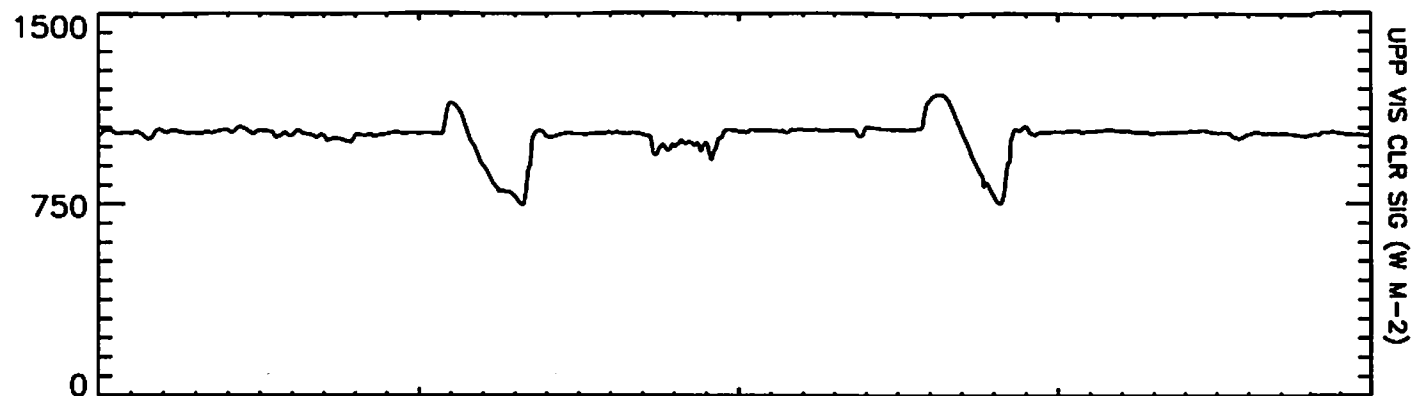
1 second averages

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Run no. R6

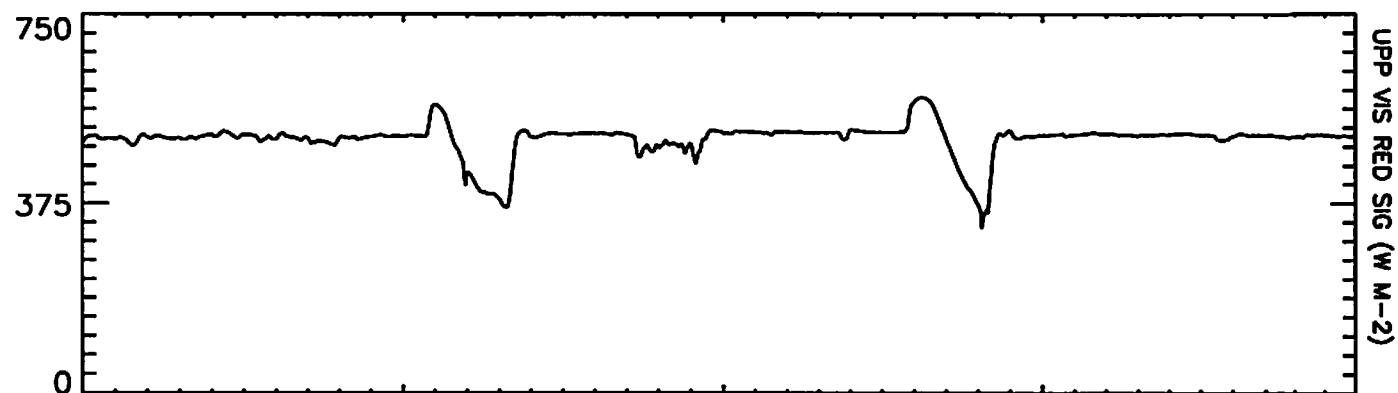
UPP VIS CLR SIG (W M-2)

Parameter no. 673  
No. of obs 1089  
Mean 1018.64  
Standard dev 61.7194  
Max value 1181.58  
Min value 748.677



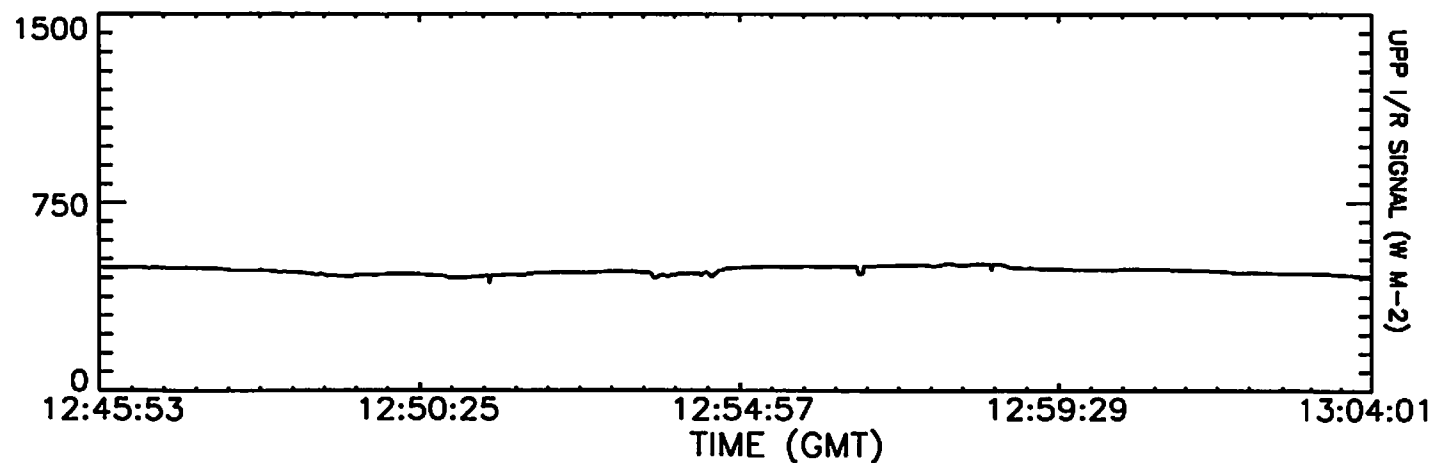
UPP VIS RED SIG (W M-2)

Parameter no. 674  
No. of obs 1089  
Mean 502.747  
Standard dev 32.6758  
Max value 585.650  
Min value 325.754



UPP I/R SIGNAL (W M-2)

Parameter no. 675  
No. of obs 1089  
Mean 479.384  
Standard dev 14.3590  
Max value 508.548  
Min value 428.916



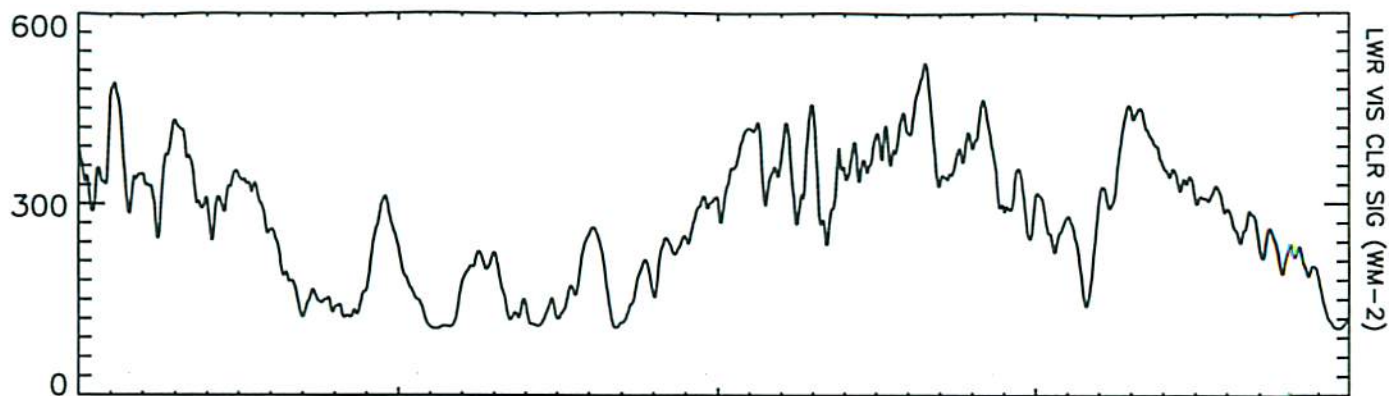
1 second averages

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Run no. R6

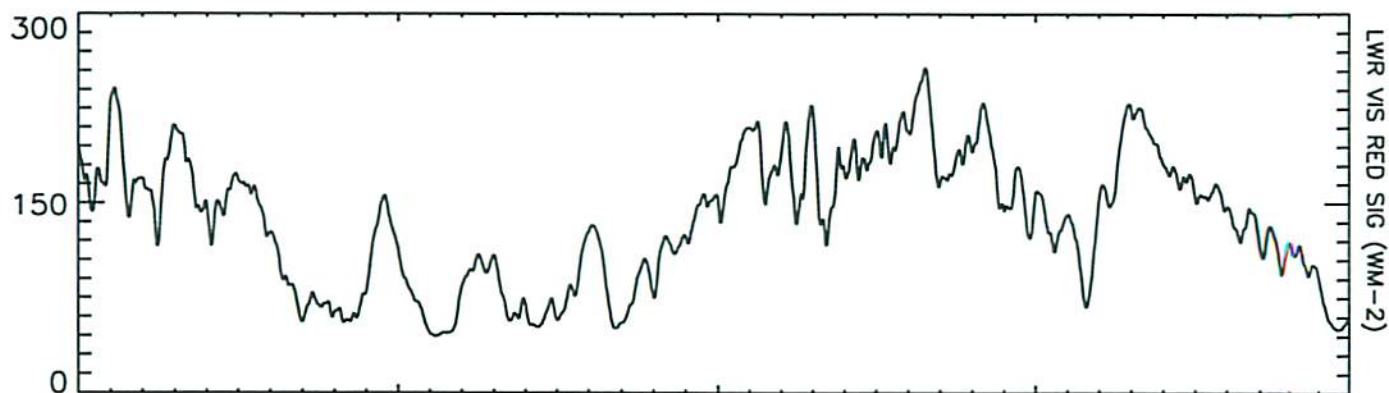
LWR VIS CLR SIG (WM-2)

Parameter no. 682  
No. of obs 1089  
Mean 274.702  
Standard dev 100.865  
Max value 521.774  
Min value 104.839



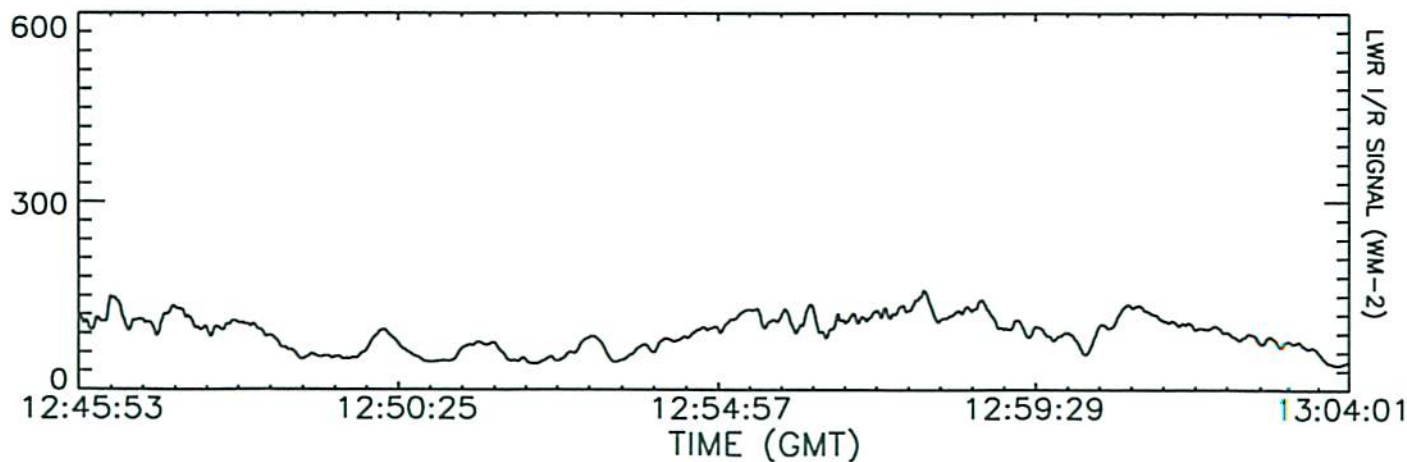
LWR VIS RED SIG (WM-2)

Parameter no. 683  
No. of obs 1089  
Mean 135.929  
Standard dev 51.5782  
Max value 257.500  
Min value 44.2378



LWR I/R SIGNAL (WM-2)

Parameter no. 684  
No. of obs 1089  
Mean 90.2440  
Standard dev 27.8529  
Max value 159.254  
Min value 39.9353



1 second averages

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Run no. R6

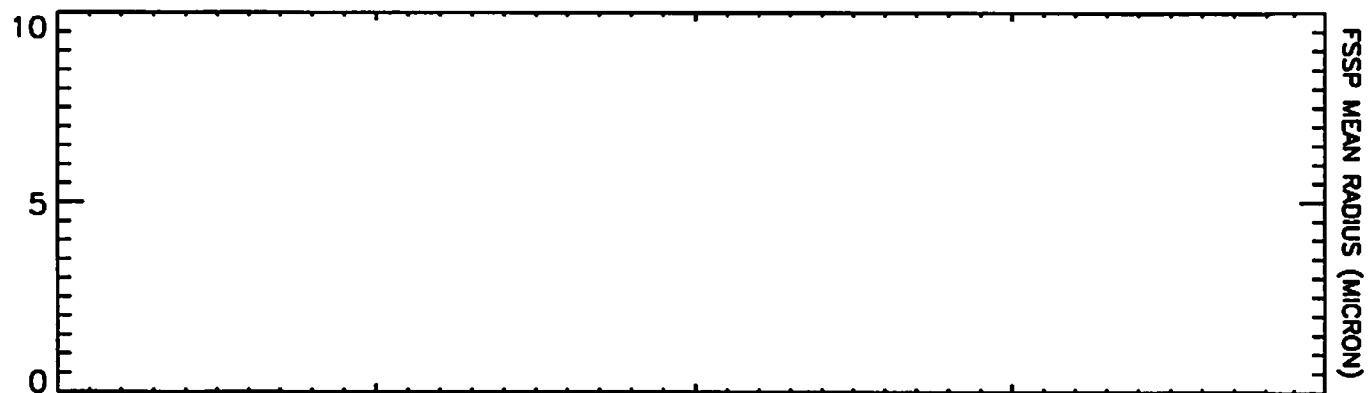
FSSP CONCENTRATION (CM-3)

Parameter no. 901  
No. of obs 1089  
Mean 0.000000  
Standard dev 0.000000  
Max value 0.000000  
Min value 0.000000



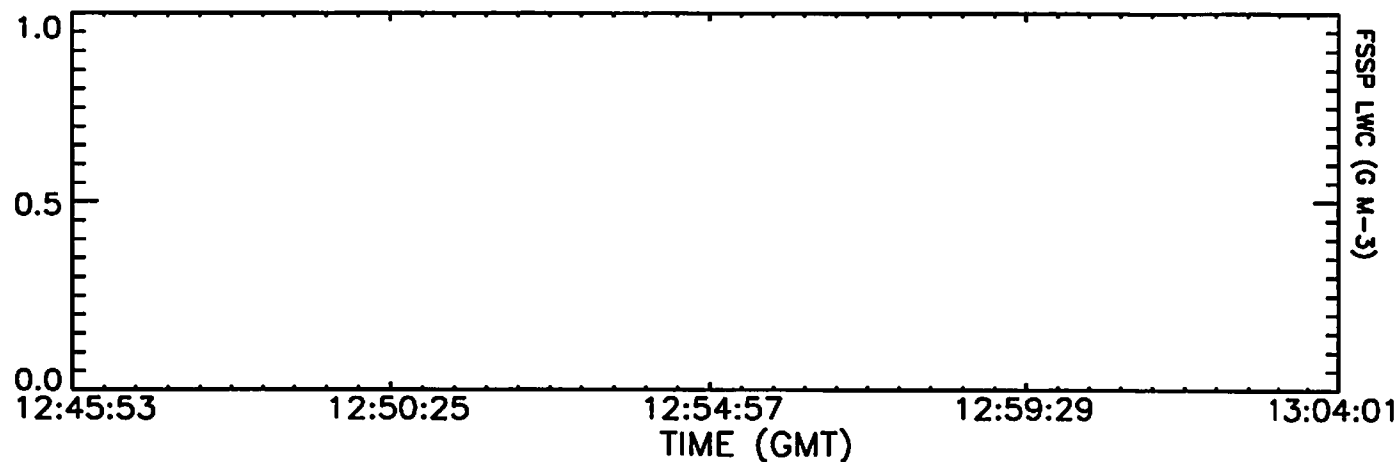
FSSP MEAN RADIUS (MICRON)

Parameter no. 902  
No. of obs 1089  
Mean 0.000000  
Standard dev 0.000000  
Max value 0.000000  
Min value 0.000000



FSSP LWC (G M-3)

Parameter no. 903  
No. of obs 1089  
Mean 0.000000  
Standard dev 0.000000  
Max value 0.000000  
Min value 0.000000



1 second averages

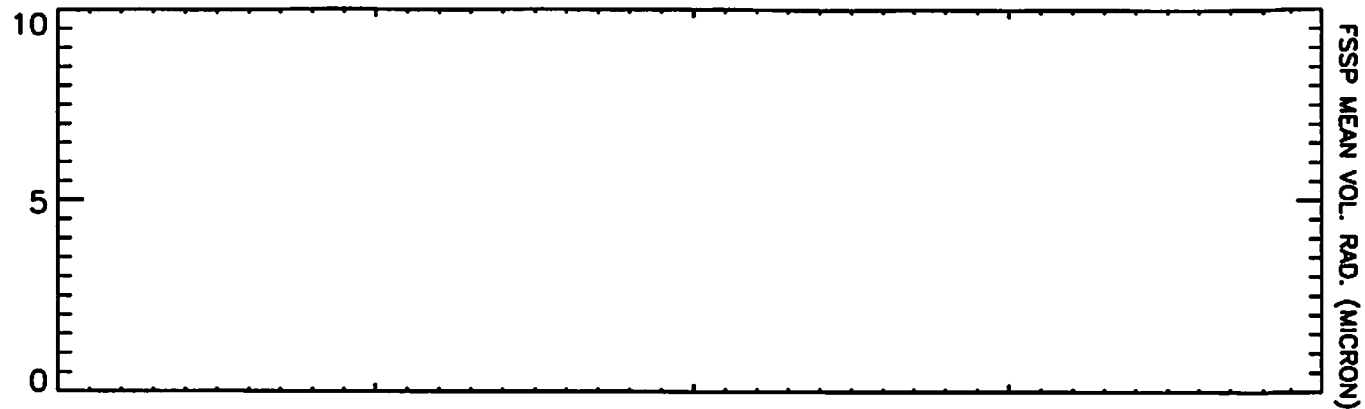


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Run no. R6

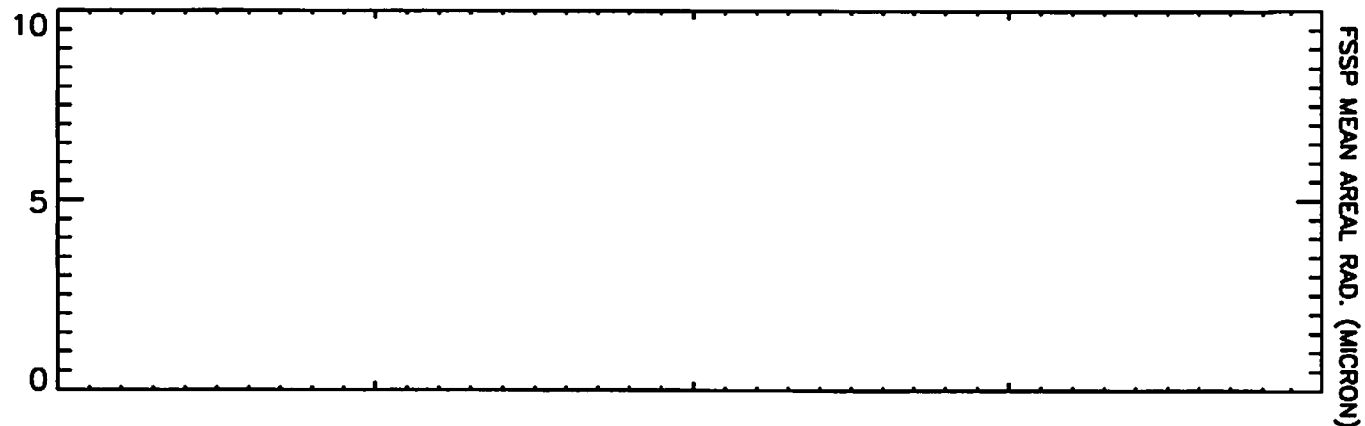
FSSP MEAN VOL. RAD. (MICRON)

Parameter no. 904  
No. of obs 1089  
Mean 0.000000  
Standard dev 0.000000  
Max value 0.000000  
Min value 0.000000



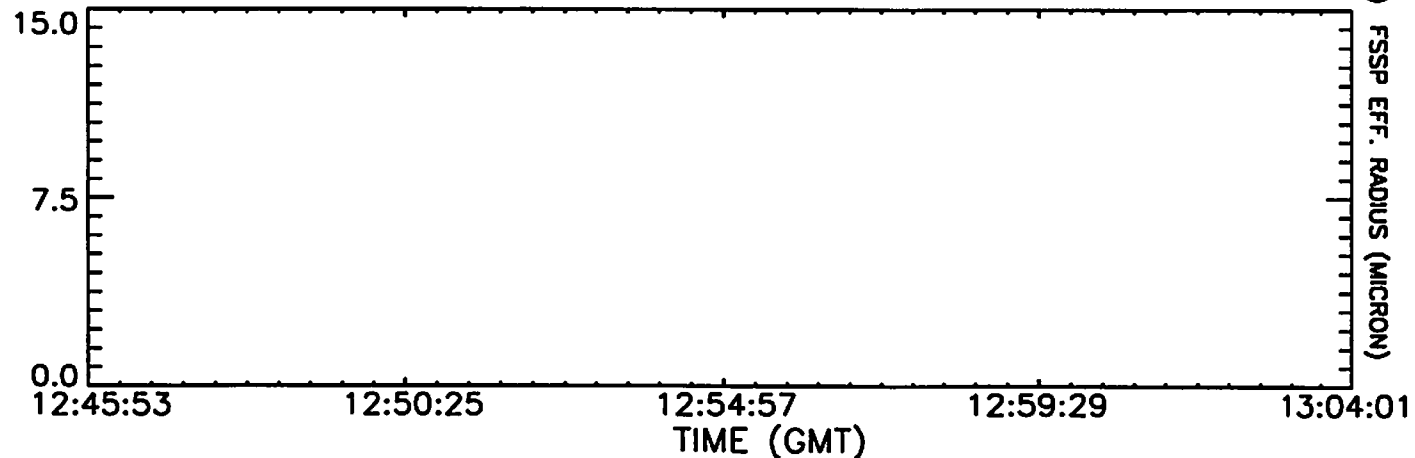
FSSP MEAN AREAL RAD. (MICRON)

Parameter no. 905  
No. of obs 1089  
Mean 0.000000  
Standard dev 0.000000  
Max value 0.000000  
Min value 0.000000



FSSP EFF. RADIUS (MICRON)

Parameter no. 906  
No. of obs 1089  
Mean 0.000000  
Standard dev 0.000000  
Max value 0.000000  
Min value 0.000000



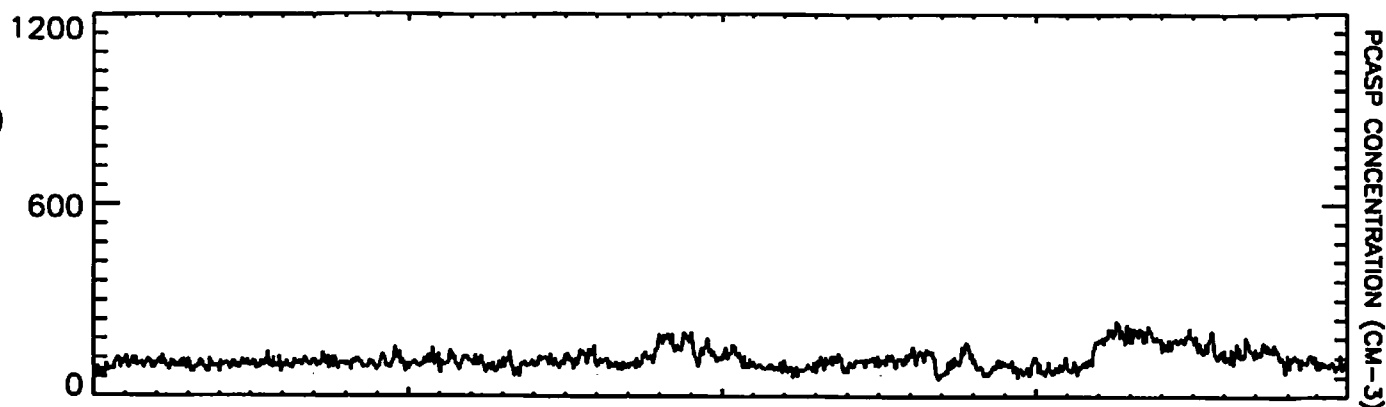
1 second averages

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Run no. R6

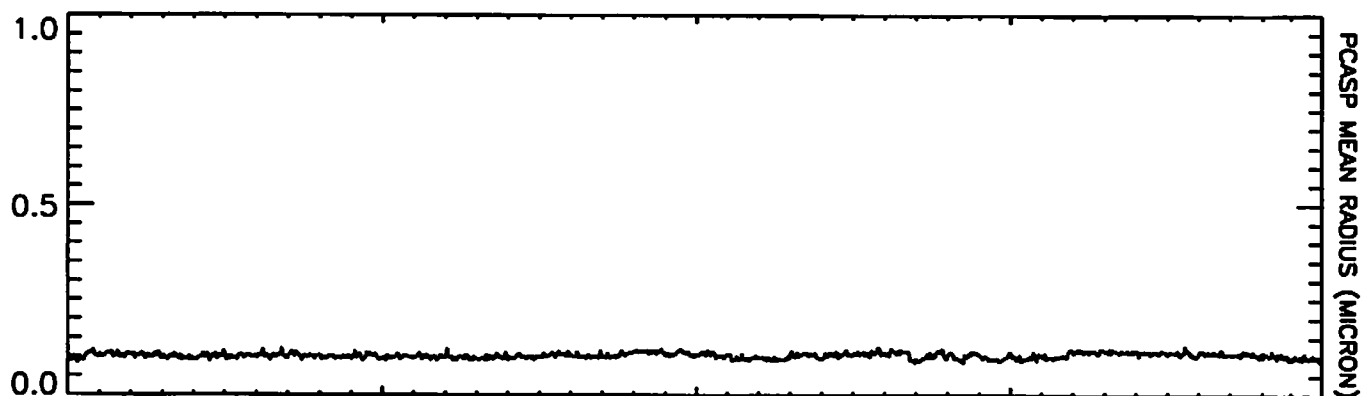
PCASP CONCENTRATION (CM-3)

Parameter no. 919  
No. of obs 1089  
Mean 115.314  
Standard dev 31.7812  
Max value 235.666  
Min value 55.0322



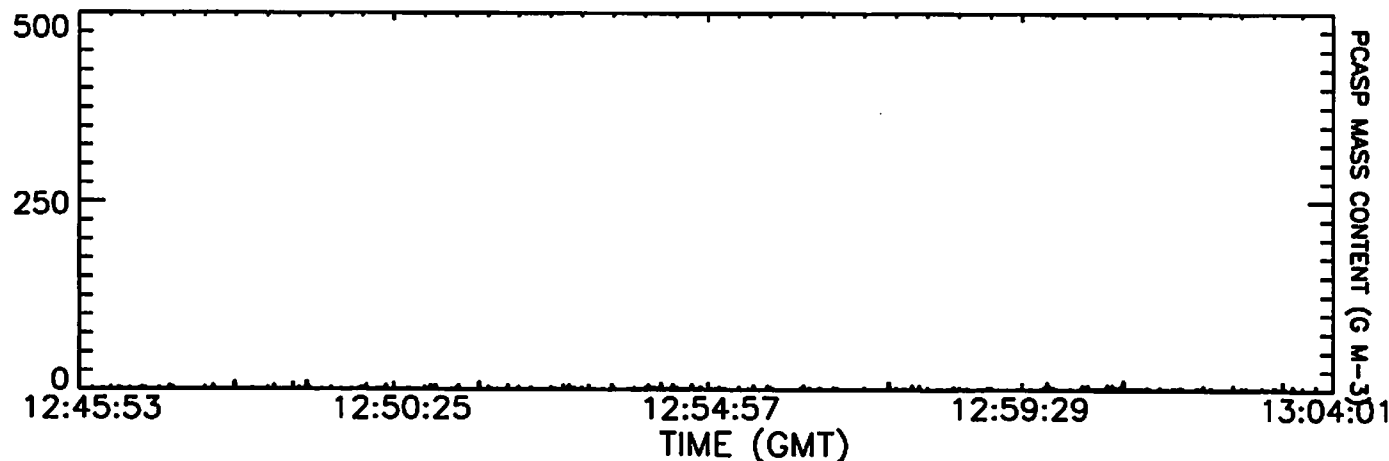
PCASP MEAN RADIUS (MICRON)

Parameter no. 920  
No. of obs 1089  
Mean 0.103399  
Standard dev 7.897982e-03  
Max value 0.130054  
Min value 8.233982e-02



PCASP MASS CONTENT (G M-3)

Parameter no. 921  
No. of obs 1089  
Mean 1.29178  
Standard dev 1.52953  
Max value 13.4791  
Min value 0.190292



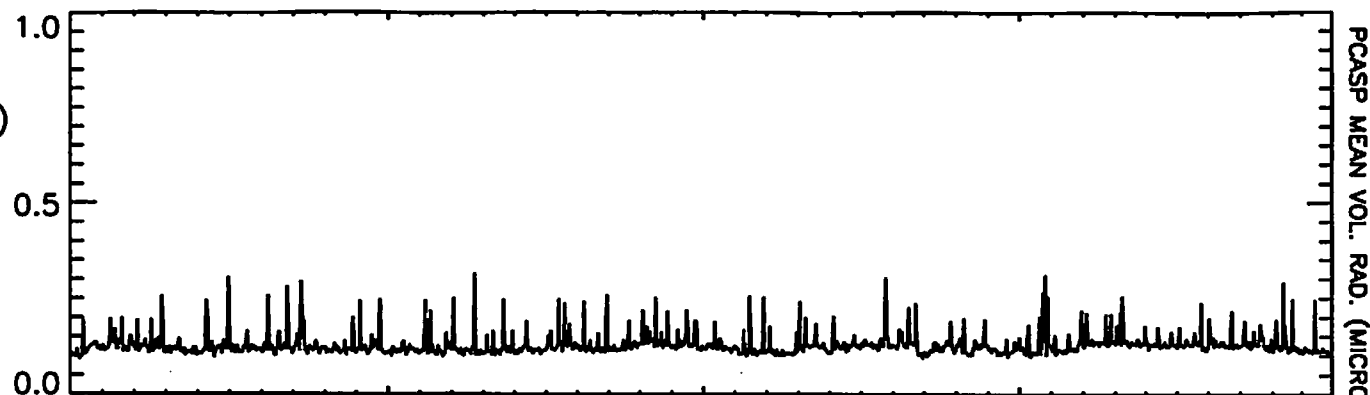
1 second averages

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Run no. R6

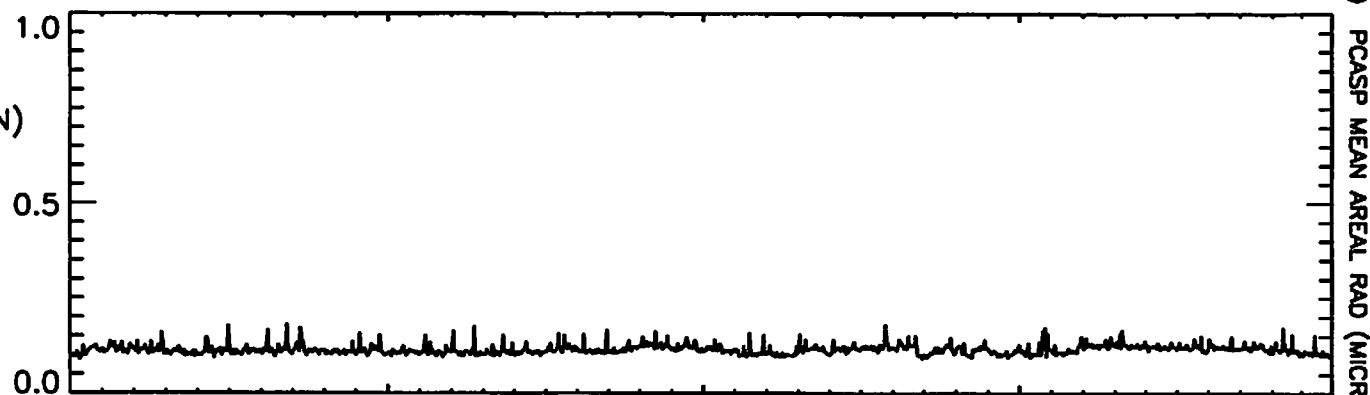
PCASP MEAN VOL. RAD. (MICRON)

Parameter no. 922  
No. of obs 1089  
Mean 0.129154  
Standard dev 3.049772e-02  
Max value 0.315893  
Min value 9.165382e-02



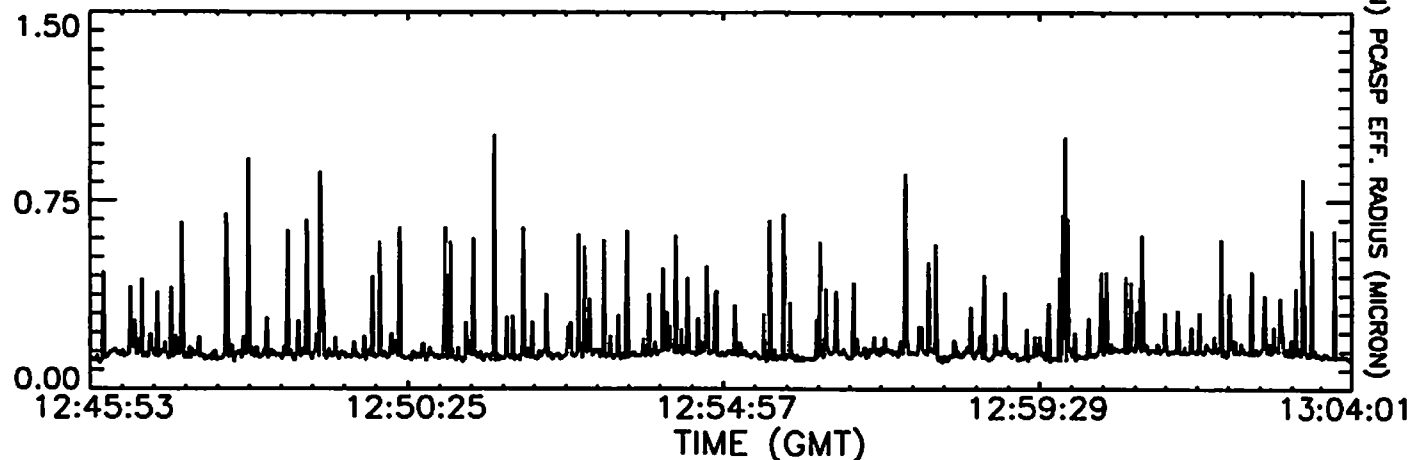
PCASP MEAN AREAL RAD (MICRON)

Parameter no. 923  
No. of obs 1089  
Mean 0.114229  
Standard dev 1.352987e-02  
Max value 0.182011  
Min value 8.680737e-02



PCASP EFF. RADIUS (MICRON)

Parameter no. 924  
No. of obs 1089  
Mean 0.172485  
Standard dev 0.108142  
Max value 1.01691  
Min value 0.102124



1 second averages

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Run no. R7

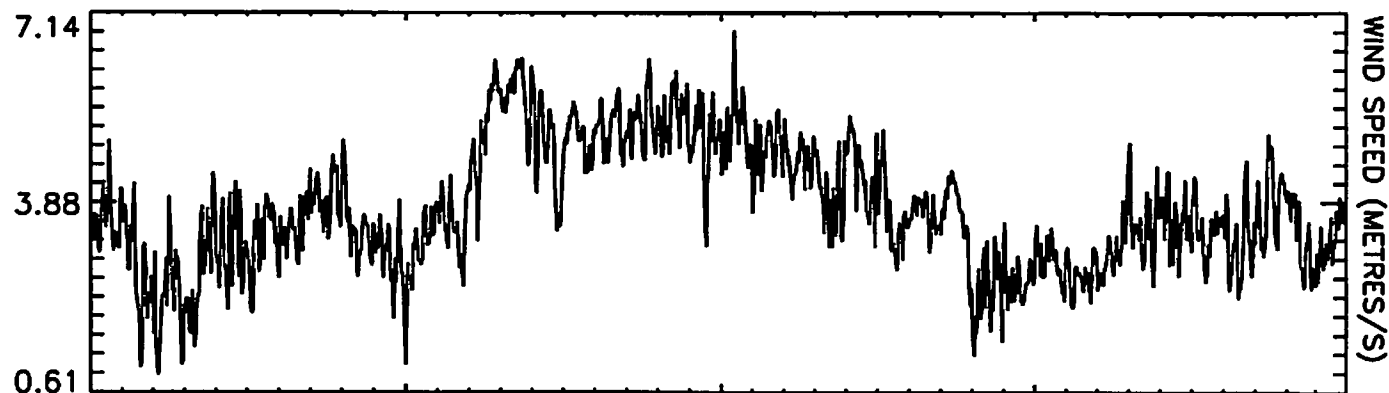
WIND DIRECTION (DEG)

No. of obs 1168  
Mean 266.598  
Standard dev 145.090  
Max value 359.996  
Min value 1.349647e-02



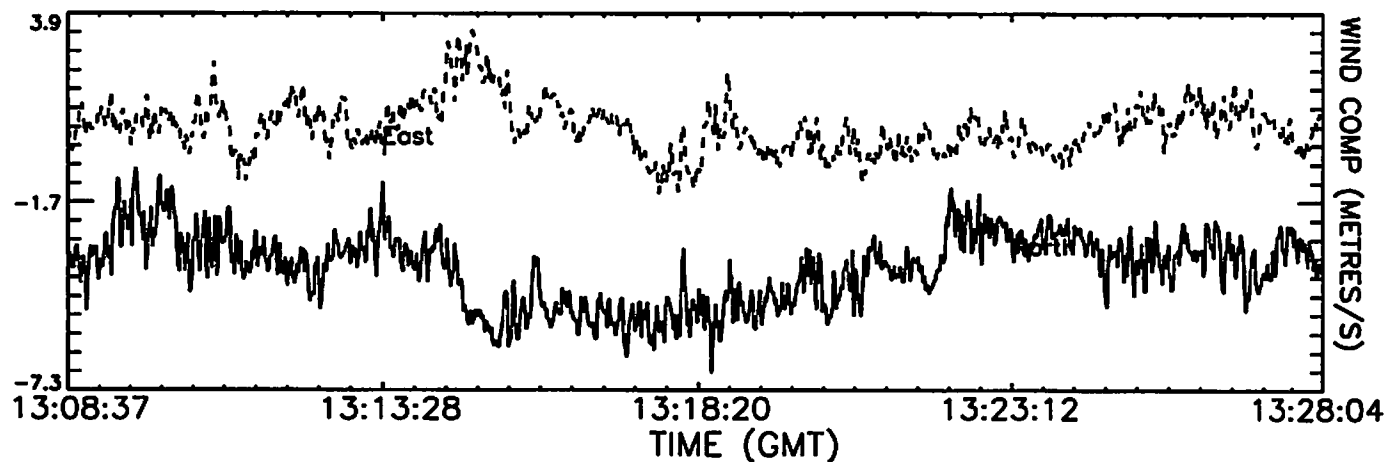
WIND SPEED (METRES/S)

No. of obs 1168  
Mean 3.76935  
Standard dev 1.07811  
Max value 6.84647  
Min value 0.906305



WIND COMP (METRES/s)

Parameter no. 714,715  
No. of obs 1168  
Mean north -3.65896  
Stan dev north 1.05887  
Max north -0.678253  
Min north -6.80477  
Mean east -3.65896  
Stan dev east 1.05887  
Max east -0.678253  
Min east -6.80477



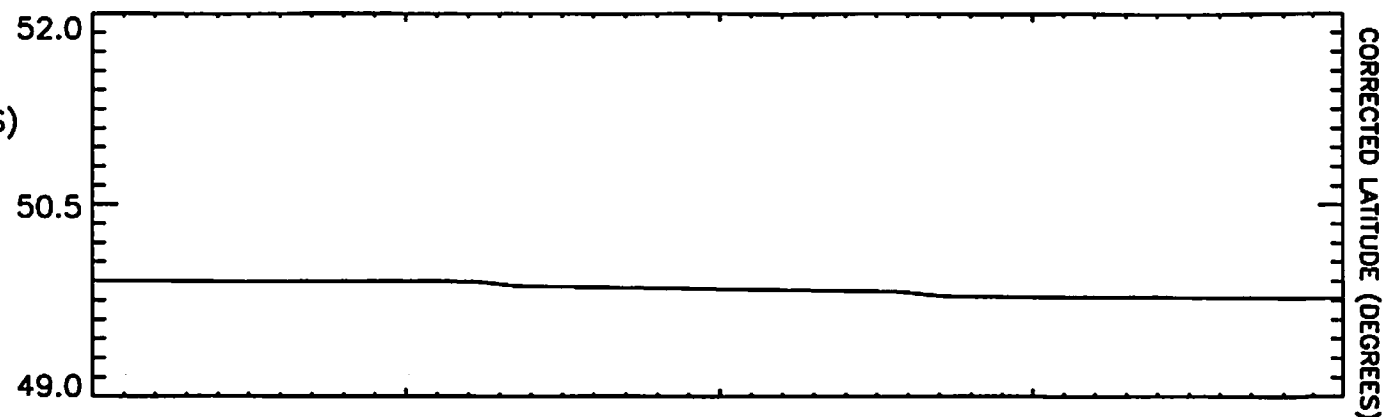
1 second averages

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Run no. R7

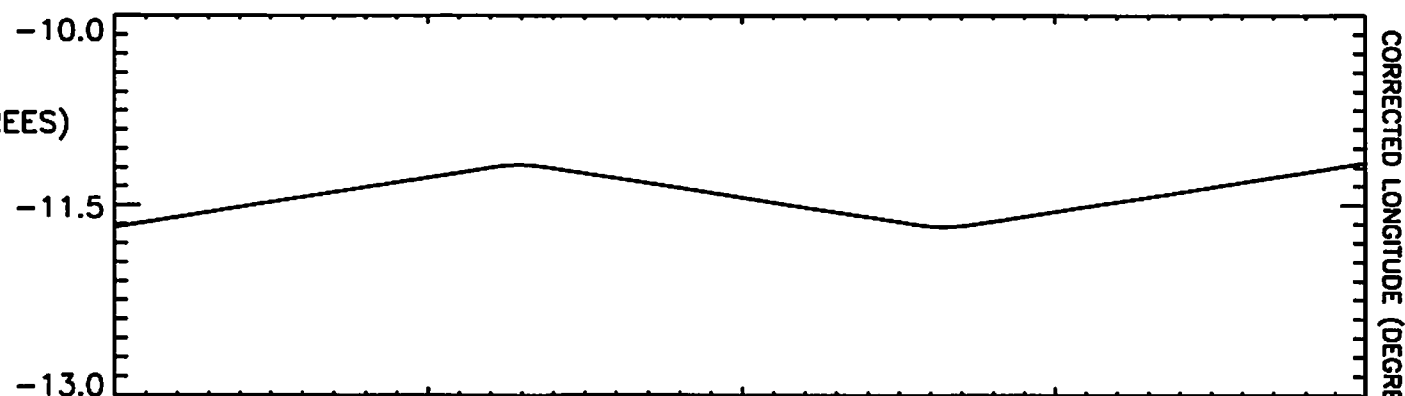
CORRECTED LATITUDE (DEGREES)

Parameter no. 730  
No. of obs 1168  
Mean 49.8365  
Standard dev 5.100300e-02  
Max value 49.9018  
Min value 49.7680



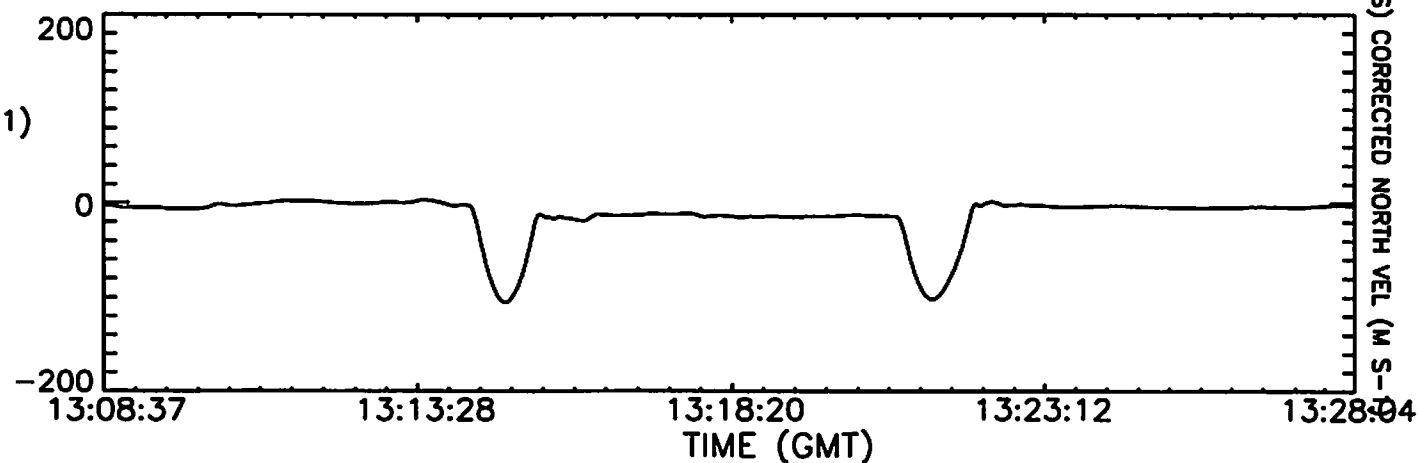
CORRECTED LONGITUDE (DEGREES)

Parameter no. 731  
No. of obs 1168  
Mean -11.4243  
Standard dev 0.149411  
Max value -11.1629  
Min value -11.6747



CORRECTED NORTH VEL (M S-1)

Parameter no. 735  
No. of obs 1168  
Mean -12.7317  
Standard dev 22.6909  
Max value 3.53731  
Min value -105.184



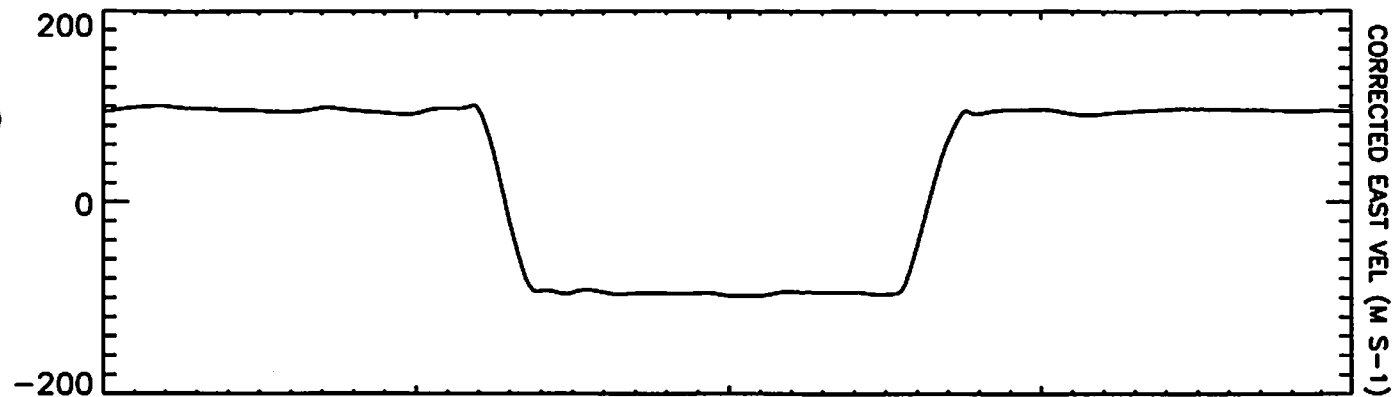
1 second averages

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Run no. R7

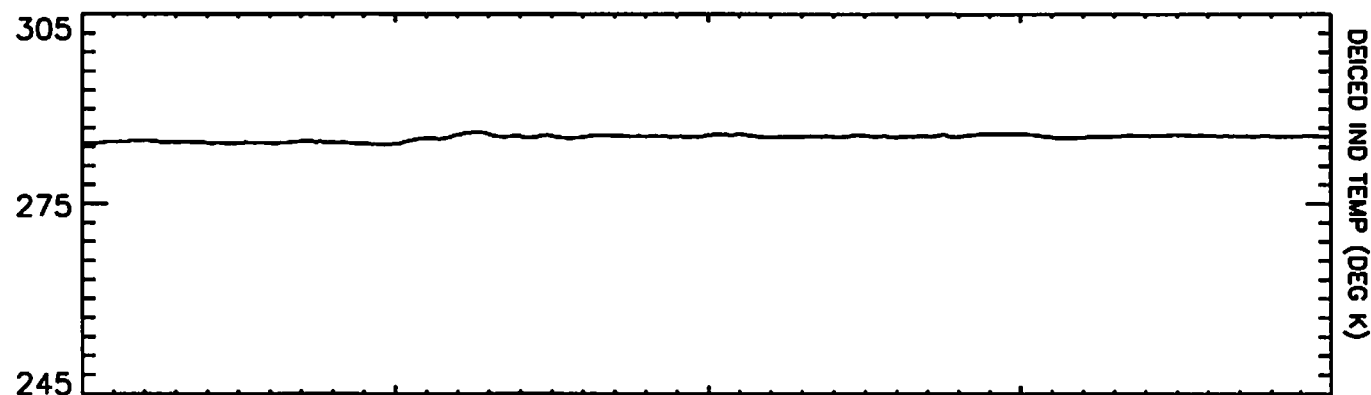
CORRECTED EAST VEL (M S-1)

Parameter no. 736  
No. of obs 1168  
Mean 31.4816  
Standard dev 87.5767  
Max value 101.232  
Min value -97.8405



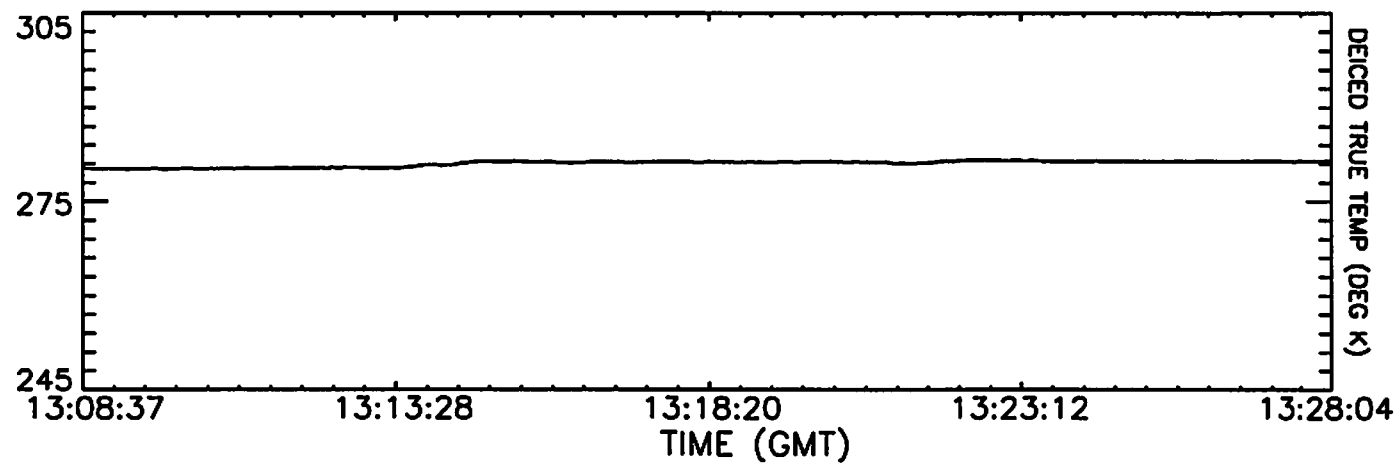
DEICED IND TEMP (DEG K)

Parameter no. 519  
No. of obs 1168  
Mean 285.469  
Standard dev 0.496221  
Max value 286.346  
Min value 284.367



DEICED TRUE TEMP (DEG K)

Parameter no. 520  
No. of obs 1168  
Mean 281.122  
Standard dev 0.491857  
Max value 281.753  
Min value 280.166



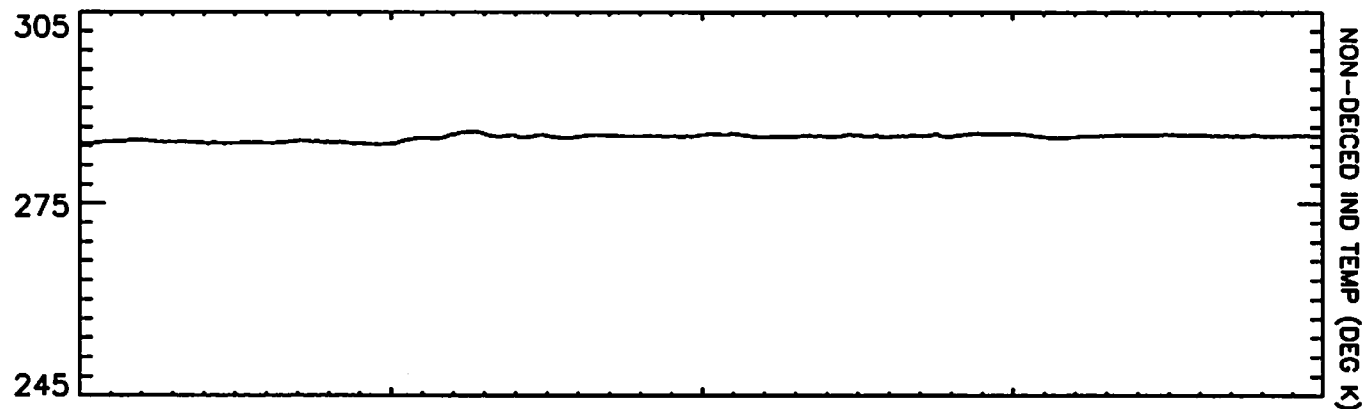
1 second averages

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Run no. R7

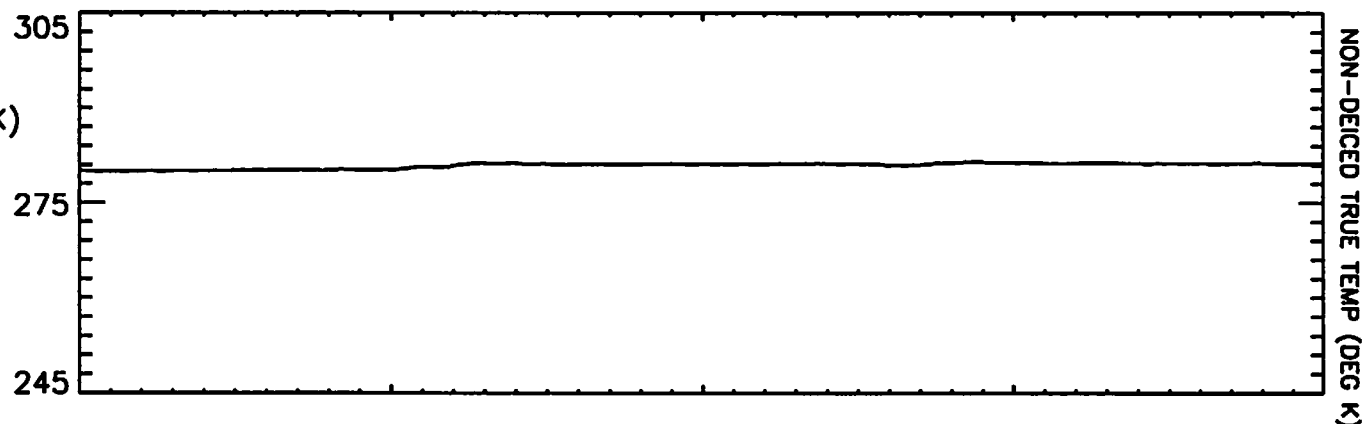
NON-DEICED IND TEMP (DEG K)

Parameter no. 524  
No. of obs 1168  
Mean 285.368  
Standard dev 0.499114  
Max value 286.260  
Min value 284.266



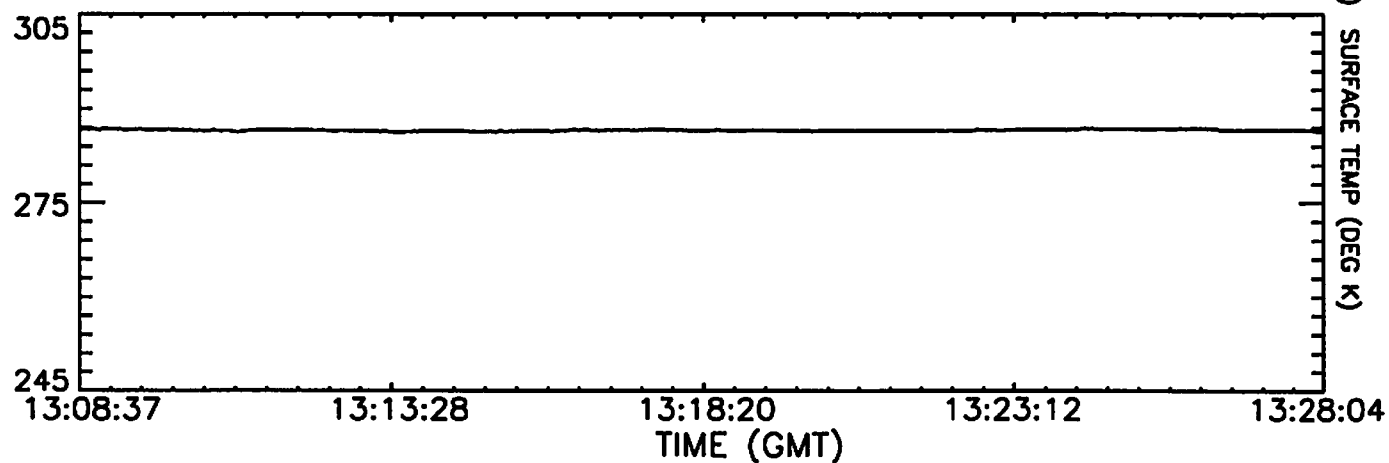
NON-DEICED TRUE TEMP (DEG K)

Parameter no. 525  
No. of obs 1168  
Mean 280.894  
Standard dev 0.494088  
Max value 281.539  
Min value 279.933



SURFACE TEMP (DEG K)

Parameter no. 537  
No. of obs 1168  
Mean 286.604  
Standard dev 0.128933  
Max value 286.962  
Min value 286.241



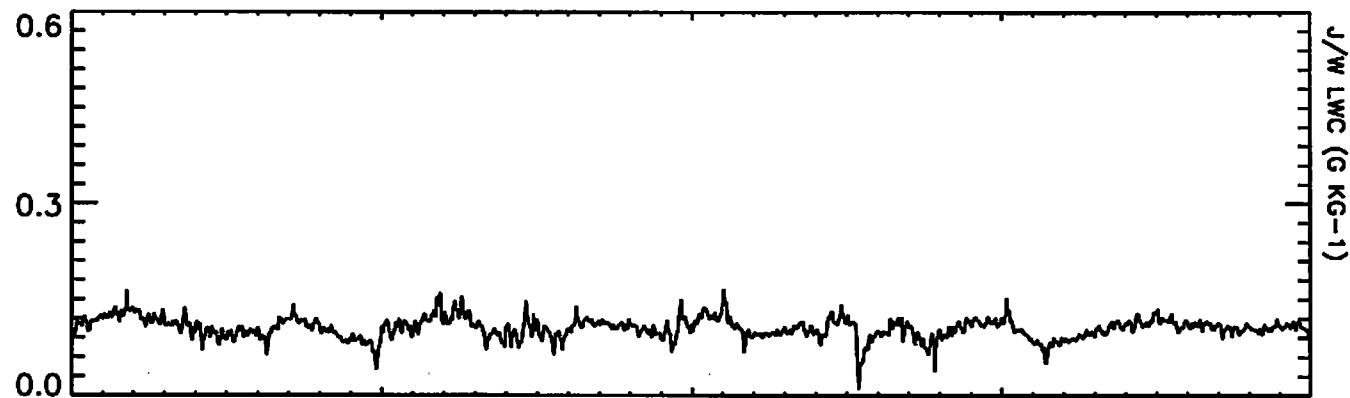
1 second averages

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Run no. R7

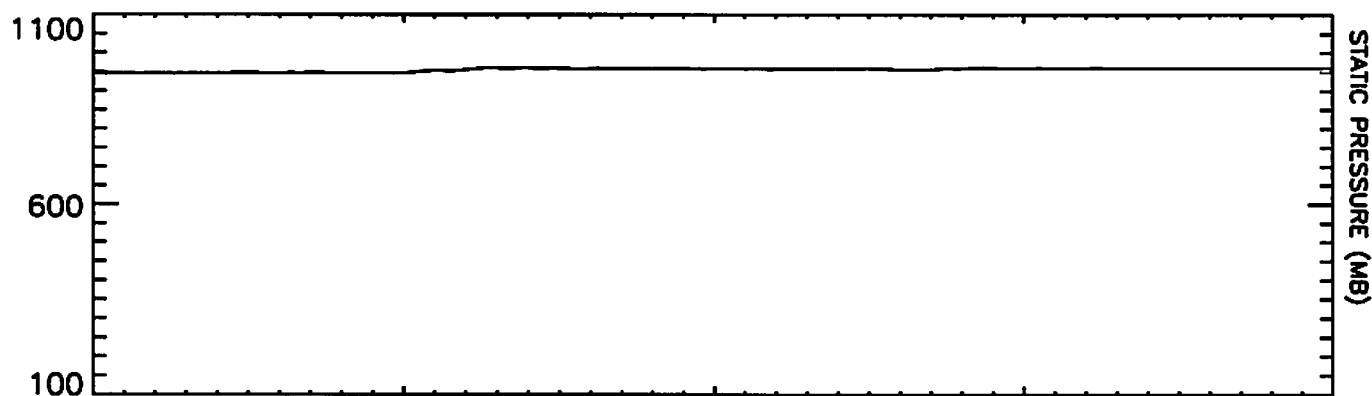
J/W LWC (G KG-1)

Parameter no. 535  
No. of obs 1168  
Mean 0.105080  
Standard dev 1.599145e-02  
Max value 0.166408  
Min value 1.018799e-02



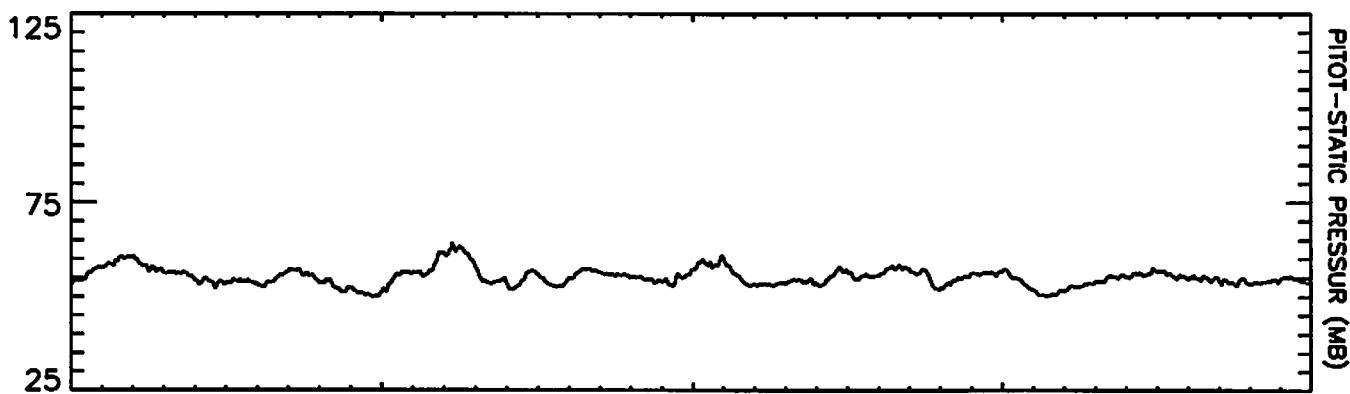
STATIC PRESSURE (MB)

Parameter no. 576  
No. of obs 1168  
Mean 955.768  
Standard dev 5.60528  
Max value 961.574  
Min value 945.822



PITOT-STATIC PRESSUR (MB)

Parameter no. 577  
No. of obs 1168  
Mean 55.2004  
Standard dev 2.31854  
Max value 64.2838  
Min value 49.9178



13:08:37 13:13:28 13:18:20 13:23:12 13:28:04  
TIME (GMT)

1 second averages

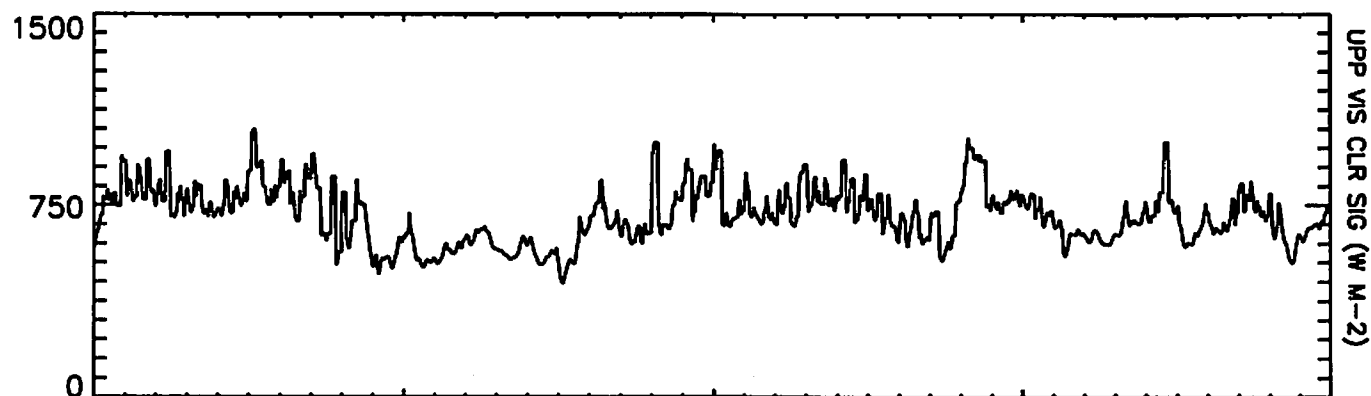


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Run no. R7

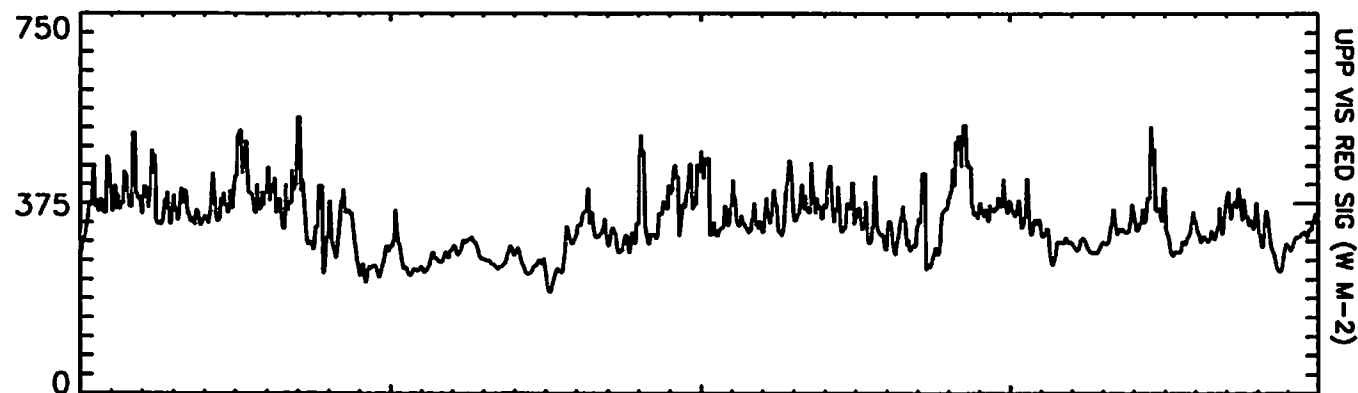
UPP VIS CLR SIG (W M-2)

Parameter no. 673  
No. of obs 1168  
Mean 708.938  
Standard dev 111.104  
Max value 1046.46  
Min value 445.149



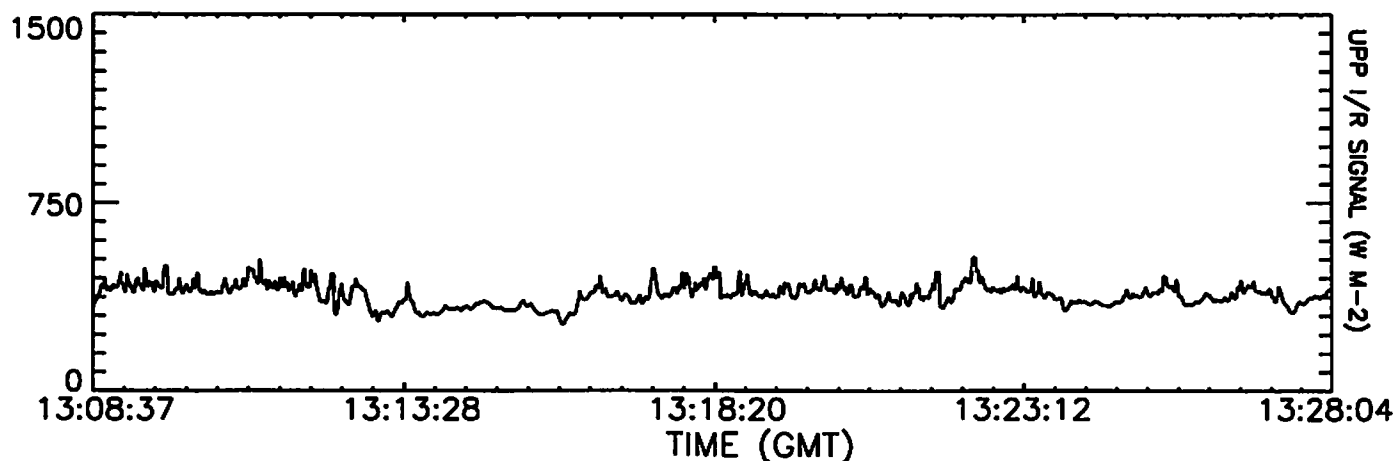
UPP VIS RED SIG (W M-2)

Parameter no. 674  
No. of obs 1168  
Mean 335.043  
Standard dev 60.1439  
Max value 545.428  
Min value 198.237



UPP I/R SIGNAL (W M-2)

Parameter no. 675  
No. of obs 1168  
Mean 384.389  
Standard dev 43.0135  
Max value 532.712  
Min value 265.258



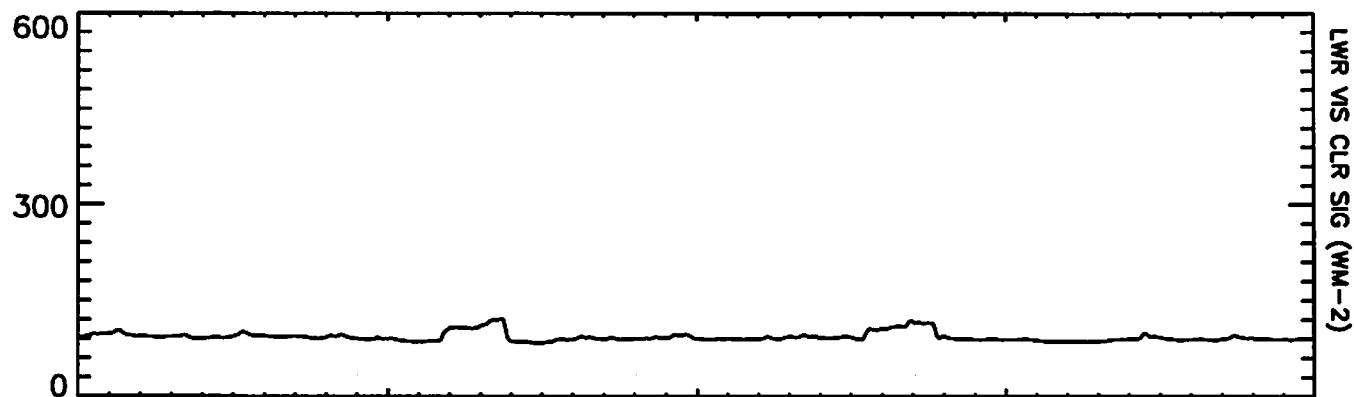
1 second averages

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Run no. R7

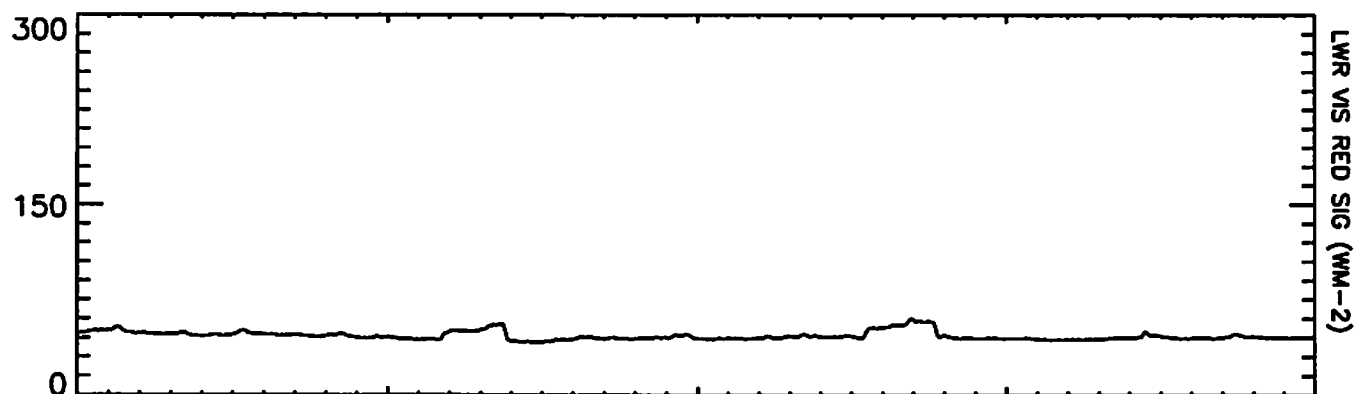
LWR VIS CLR SIG (WM-2)

Parameter no. 682  
No. of obs 1168  
Mean 93.1714  
Standard dev 6.94925  
Max value 121.371  
Min value 83.8710



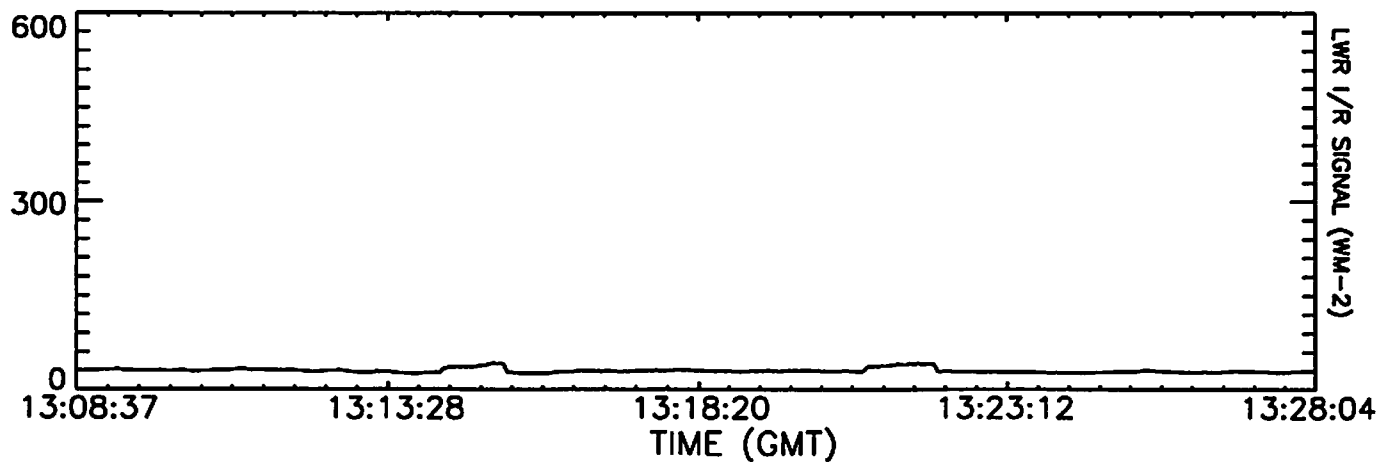
LWR VIS RED SIG (WM-2)

Parameter no. 683  
No. of obs 1168  
Mean 46.4657  
Standard dev 3.24874  
Max value 60.0918  
Min value 41.4250



LWR I/R SIGNAL (WM-2)

Parameter no. 684  
No. of obs 1168  
Mean 30.1620  
Standard dev 3.44613  
Max value 42.8574  
Min value 25.5683



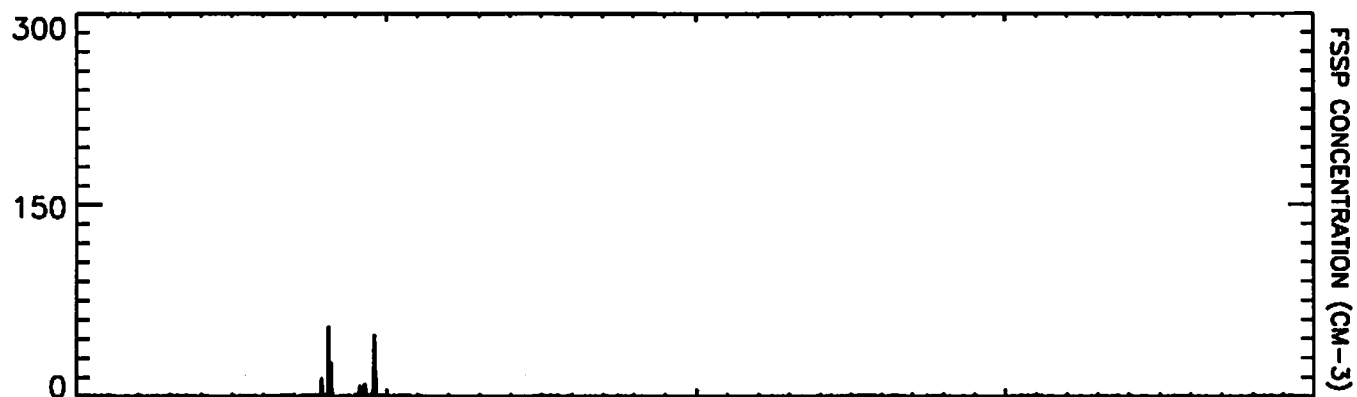
1 second averages

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Run no. R7

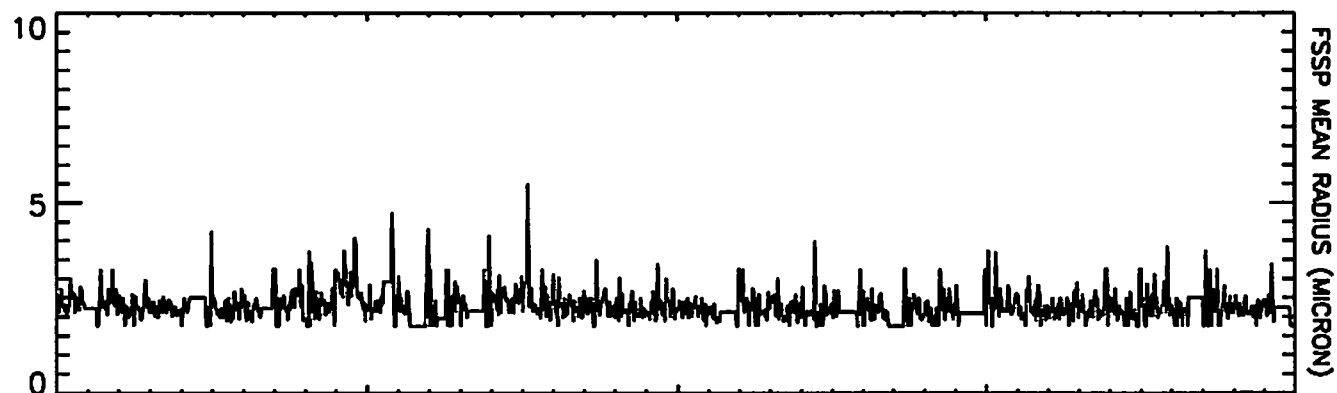
FSSP CONCENTRATION (CM-3)

Parameter no. 901  
No. of obs 1168  
Mean 0.746351  
Standard dev 2.48179  
Max value 55.5510  
Min value 2.389336e-02



FSSP MEAN RADIUS (MICRON)

Parameter no. 902  
No. of obs 1168  
Mean 2.28138  
Standard dev 0.397624  
Max value 5.50000  
Min value 1.75000



FSSP LWC (G M-3)

Parameter no. 903  
No. of obs 1168  
Mean 1.154634e-04  
Standard dev 9.111309e-04  
Max value 2.151392e-02  
Min value 5.582817e-07



13:08:37 13:13:28 13:18:20 13:23:12 13:28:04  
TIME (GMT)

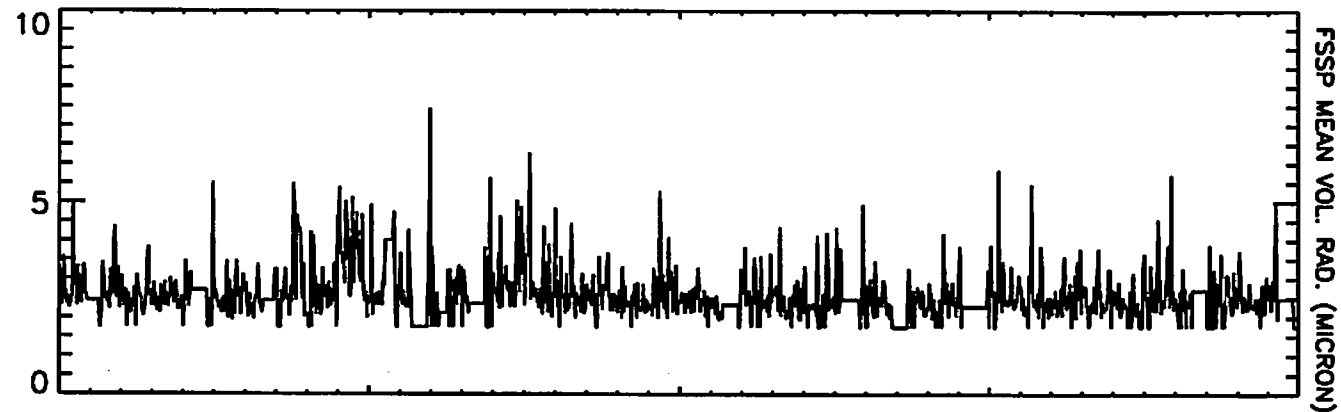
1 second averages

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Run no. R7

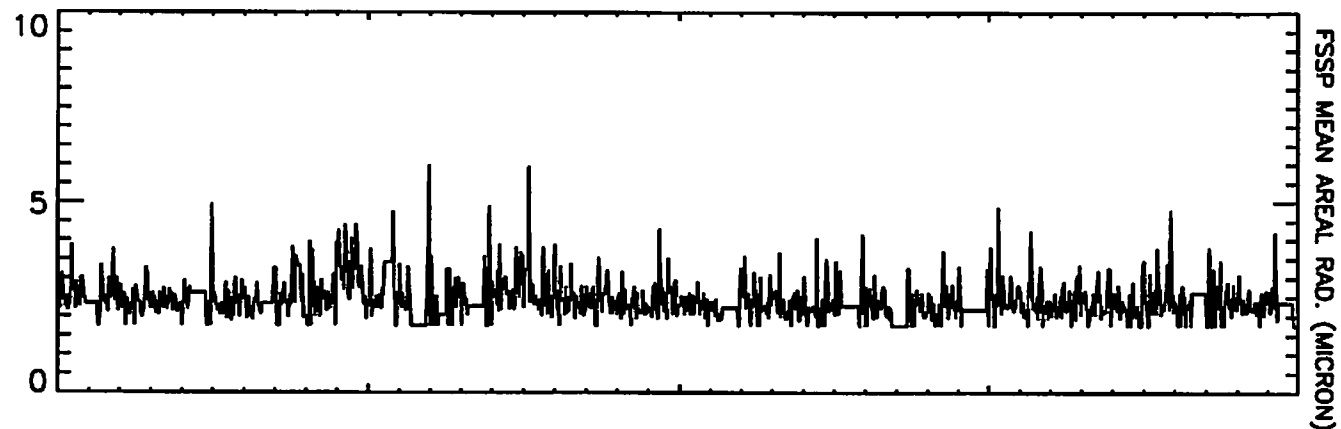
FSSP MEAN VOL. RAD. (MICRON)

Parameter no. 904  
No. of obs 1168  
Mean 2.58537  
Standard dev 0.660463  
Max value 7.45545  
Min value 1.75025



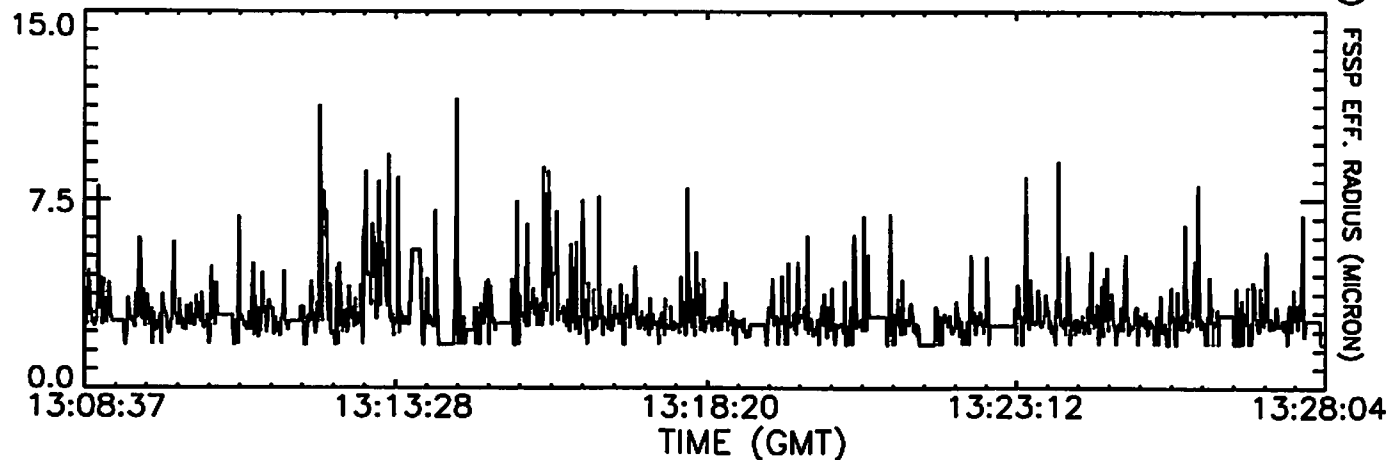
FSSP MEAN AREAL RAD. (MICRON)

Parameter no. 905  
No. of obs 1168  
Mean 2.42646  
Standard dev 0.512302  
Max value 5.98742  
Min value 1.74999



FSSP EFF. RADIUS (MICRON)

Parameter no. 906  
No. of obs 1168  
Mean 2.96093  
Standard dev 1.13582  
Max value 11.5555  
Min value 1.75008



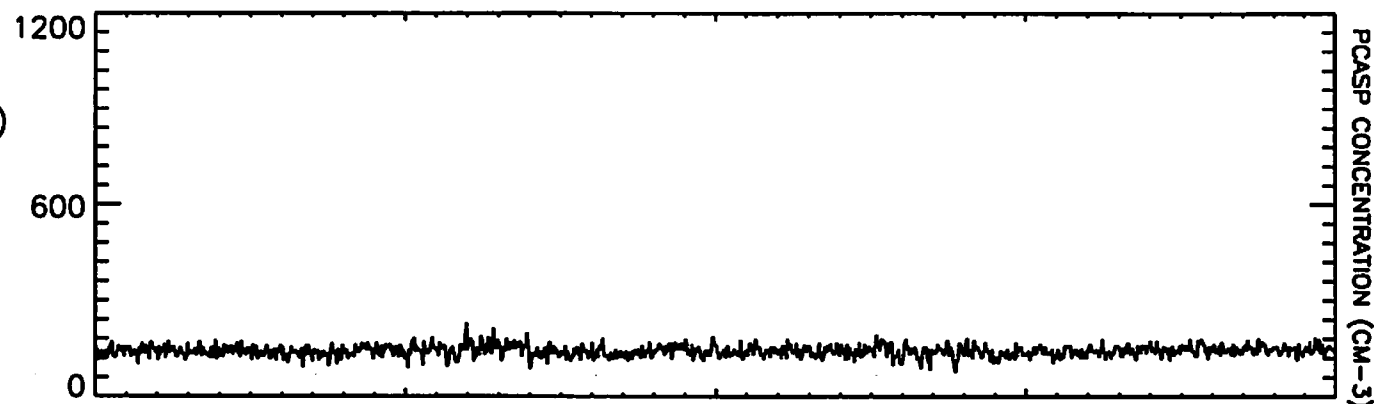
1 second averages

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Run no. R7

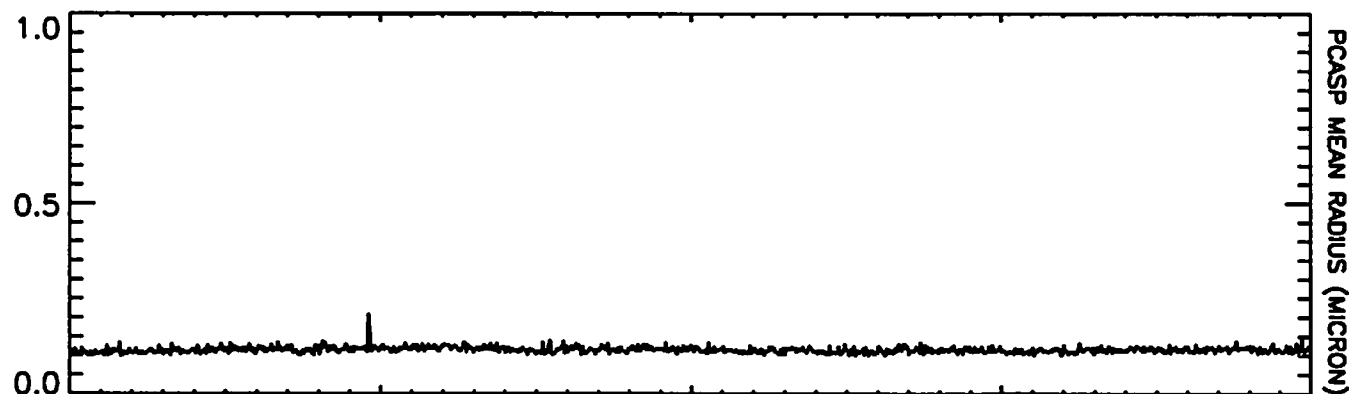
PCASP CONCENTRATION (CM-3)

Parameter no. 919  
No. of obs 1168  
Mean 142.024  
Standard dev 17.4810  
Max value 230.885  
Min value 79.0771



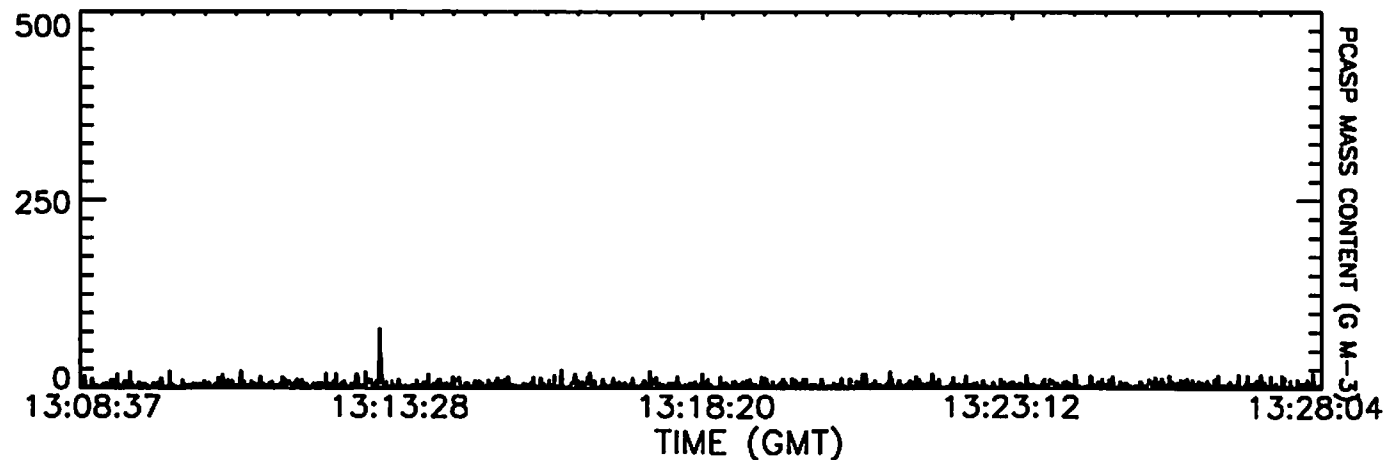
PCASP MEAN RADIUS (MICRON)

Parameter no. 920  
No. of obs 1168  
Mean 0.114868  
Standard dev 8.510854e-03  
Max value 0.209375  
Min value 9.673929e-02



PCASP MASS CONTENT (G M-3)

Parameter no. 921  
No. of obs 1168  
Mean 4.73506  
Standard dev 5.16994  
Max value 80.1667  
Min value 0.499179



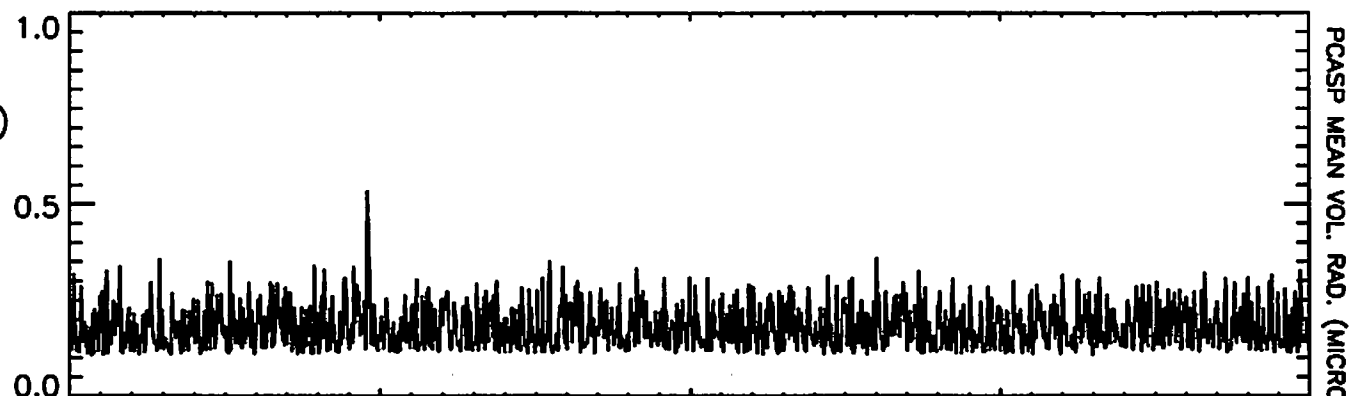
1 second averages

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Run no. R7

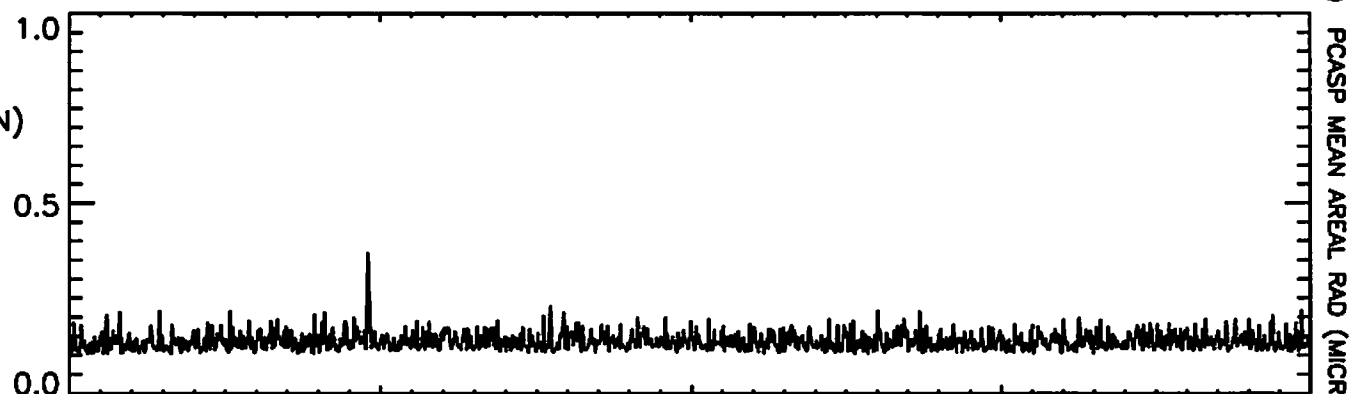
PCASP MEAN VOL. RAD. (MICRON)

Parameter no. 922  
No. of obs 1168  
Mean 0.181332  
Standard dev 5.829603e-02  
Max value 0.536165  
Min value 0.105314



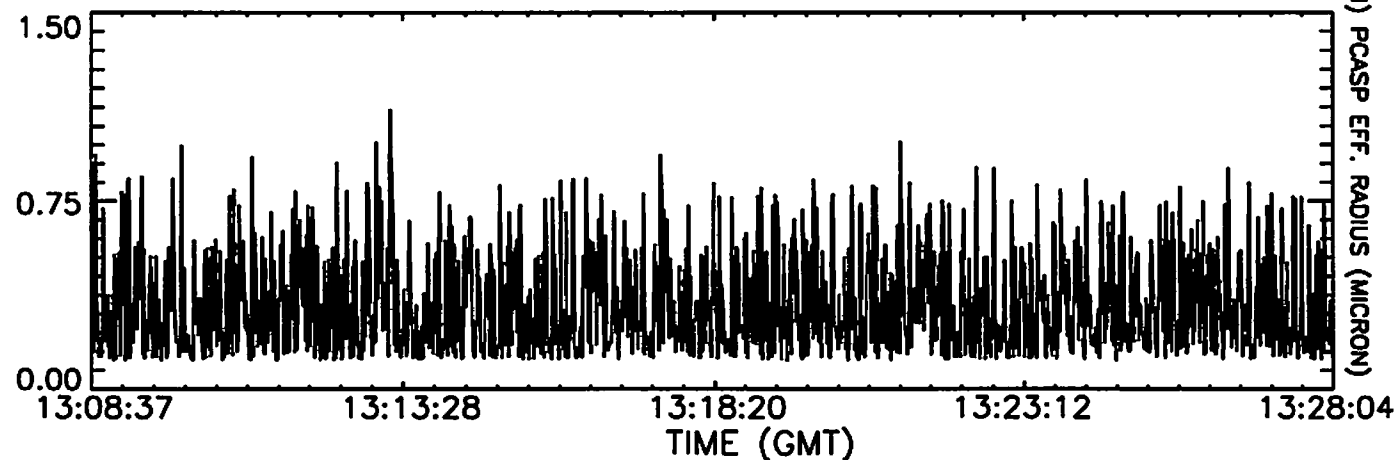
PCASP MEAN AREAL RAD (MICRON)

Parameter no. 923  
No. of obs 1168  
Mean 0.137237  
Standard dev 2.456443e-02  
Max value 0.371350  
Min value 0.102245



PCASP EFF. RADIUS (MICRON)

Parameter no. 924  
No. of obs 1168  
Mean 0.337875  
Standard dev 0.207355  
Max value 1.11722  
Min value 0.111679



1 second averages

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Run no. R8

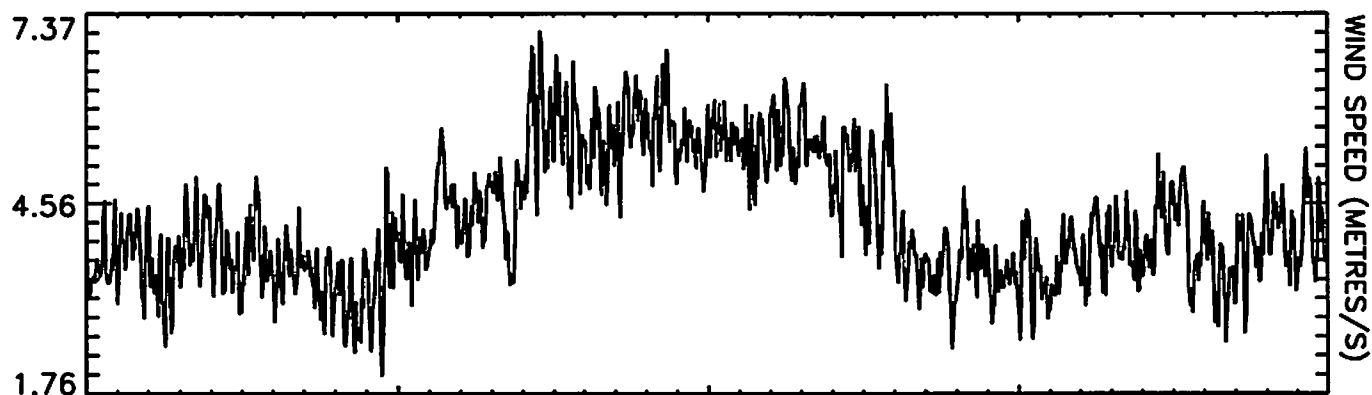
WIND DIRECTION (DEG)

No. of obs 1077  
Mean 77.4114  
Standard dev 135.285  
Max value 359.995  
Min value 3.837203e-02



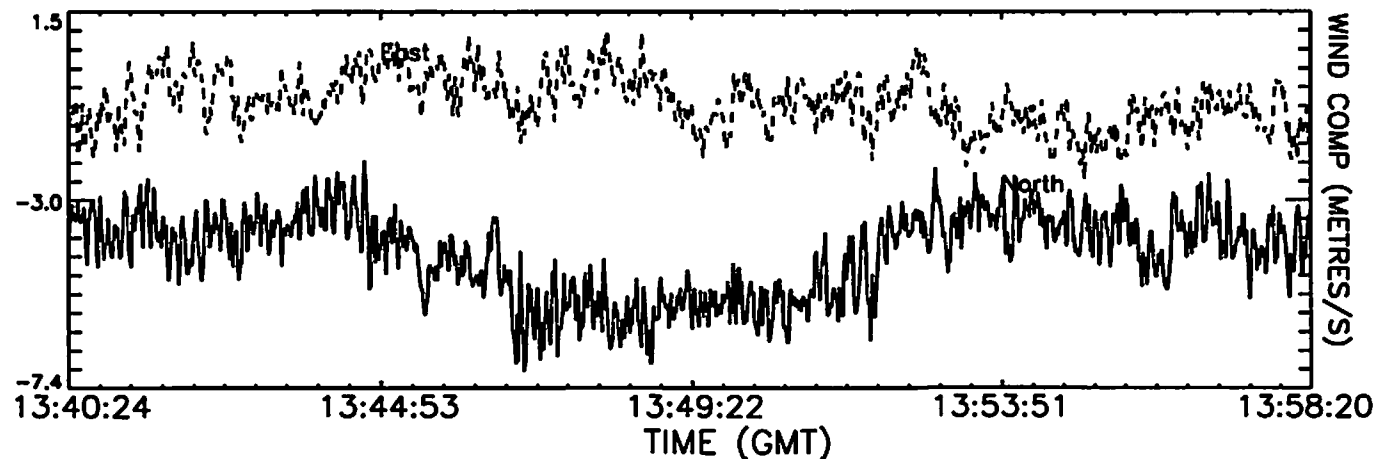
WIND SPEED (METRES/S)

No. of obs 1077  
Mean 4.32653  
Standard dev 0.952577  
Max value 7.11202  
Min value 2.01540



WIND COMP (METRES/s)

Parameter no. 714,715  
No. of obs 1077  
Mean north -4.22644  
Stan dev north 0.989874  
Max north -2.00417  
Min north -7.00400  
Mean east -4.22644  
Stan dev east 0.989874  
Max east -2.00417  
Min east -7.00400



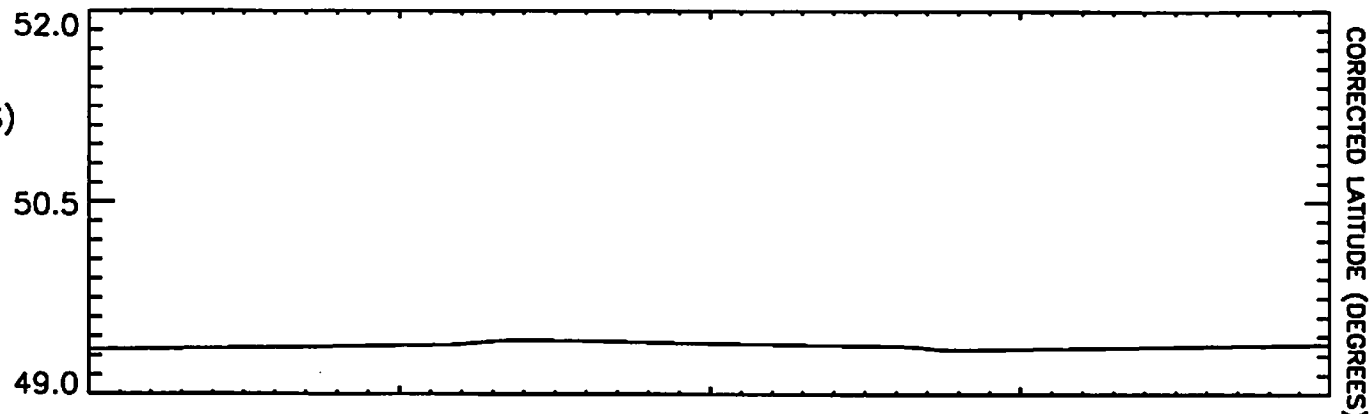
1 second averages

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Run no. R8

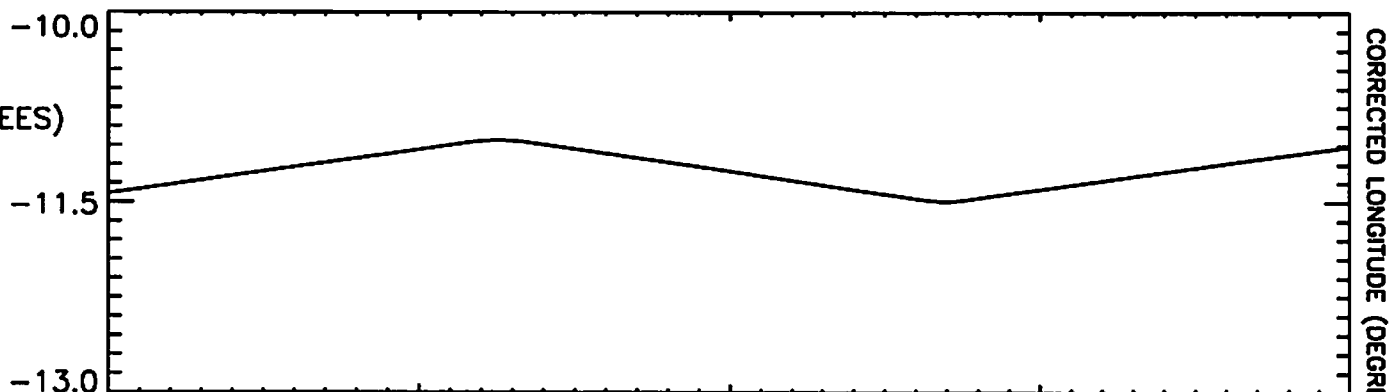
CORRECTED LATITUDE (DEGREES)

Parameter no. 730  
No. of obs 1077  
Mean 49.3784  
Standard dev 2.015133e-02  
Max value 49.4229  
Min value 49.3472



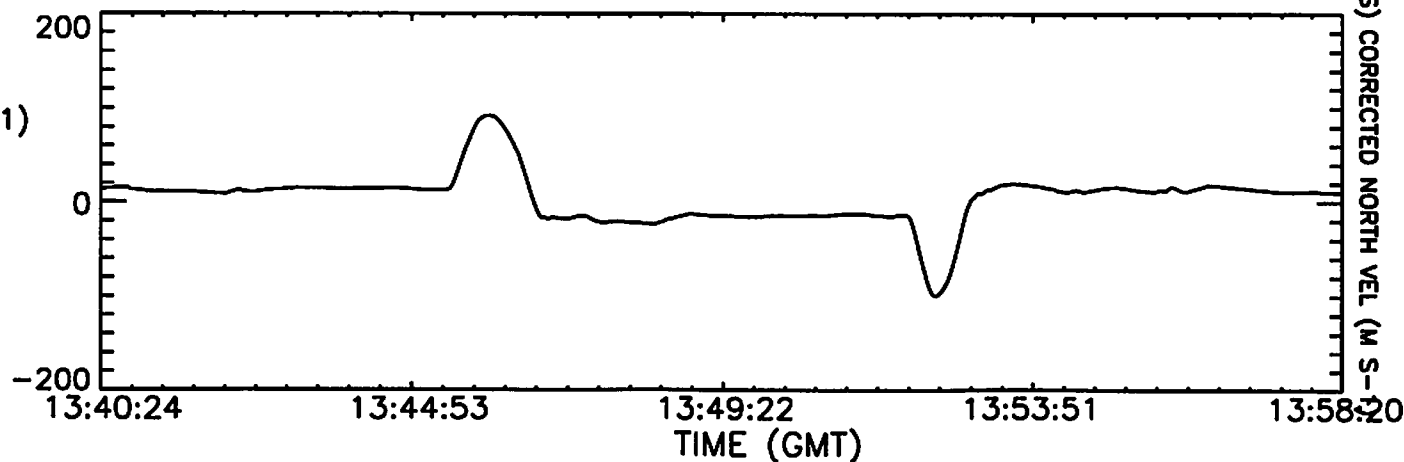
CORRECTED LONGITUDE (DEGREES)

Parameter no. 731  
No. of obs 1077  
Mean -11.2466  
Standard dev 0.136969  
Max value -11.0109  
Min value -11.4924



CORRECTED NORTH VEL (M S-1)

Parameter no. 735  
No. of obs 1077  
Mean 4.21406  
Standard dev 26.3964  
Max value 92.1040  
Min value -99.1394



1 second averages

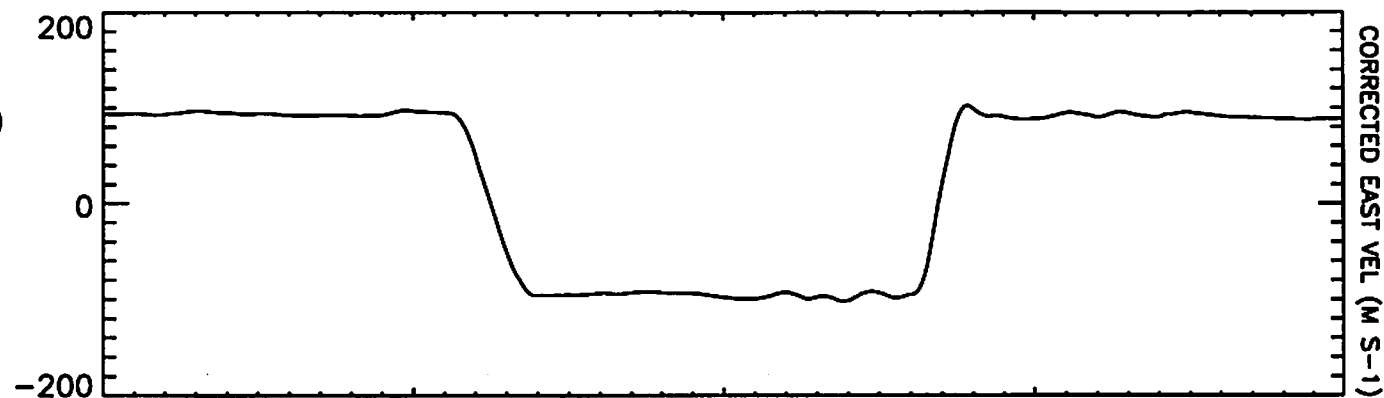


A462 26-JUN-96

Run no. R8

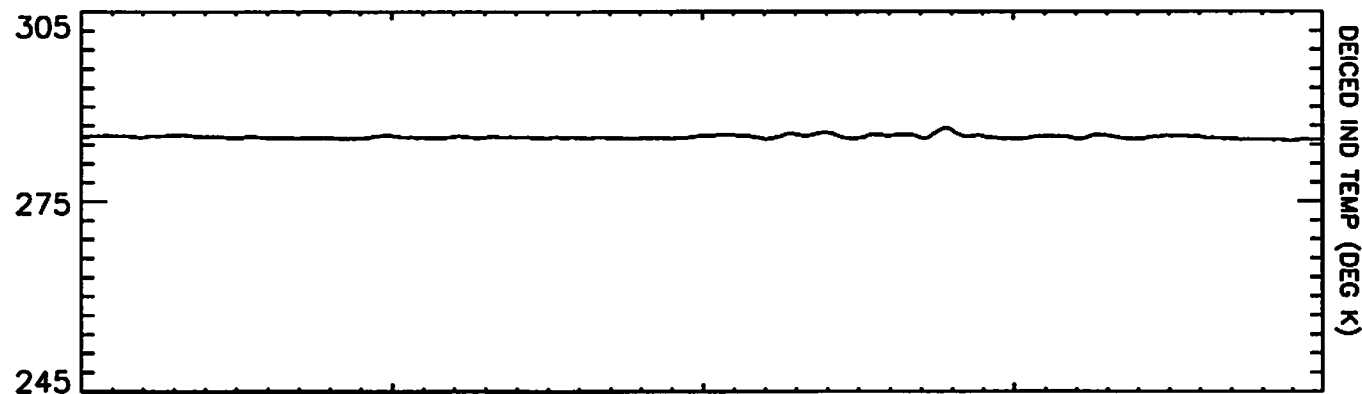
CORRECTED EAST VEL (M S-1)

Parameter no. 736  
No. of obs 1077  
Mean 25.3141  
Standard dev 87.6385  
Max value 102.460  
Min value -101.644



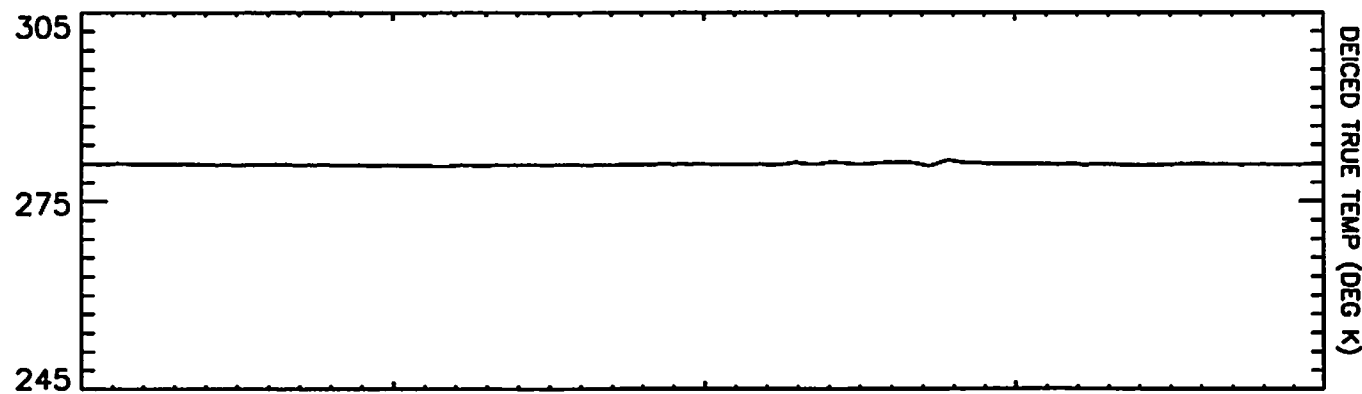
DEICED IND TEMP (DEG K)

Parameter no. 519  
No. of obs 1077  
Mean 285.214  
Standard dev 0.272058  
Max value 286.666  
Min value 284.613



DEICED TRUE TEMP (DEG K)

Parameter no. 520  
No. of obs 1077  
Mean 280.896  
Standard dev 0.134514  
Max value 281.552  
Min value 280.626



13:40:24 13:44:53 13:49:22 13:53:51 13:58:20  
TIME (GMT)

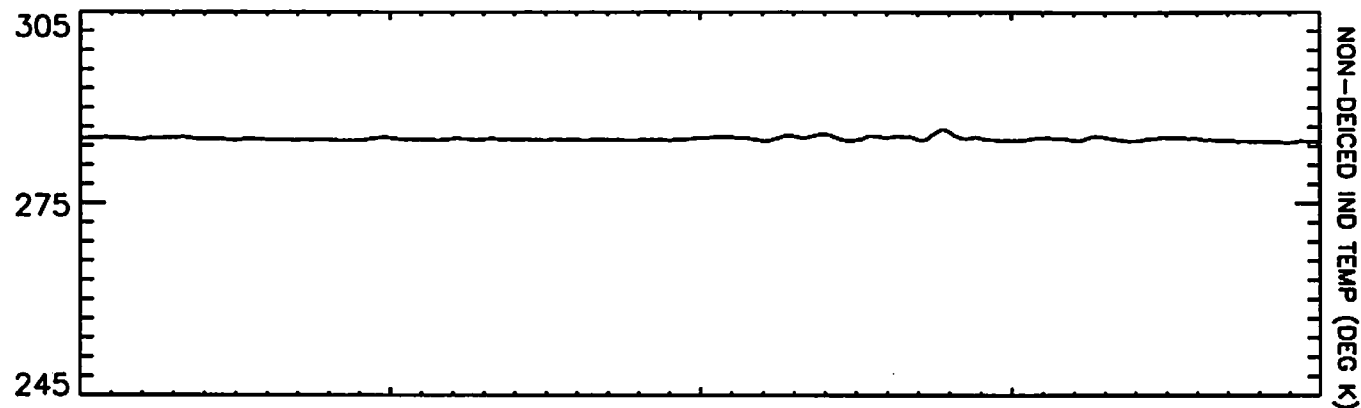
1 second averages

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Run no. R8

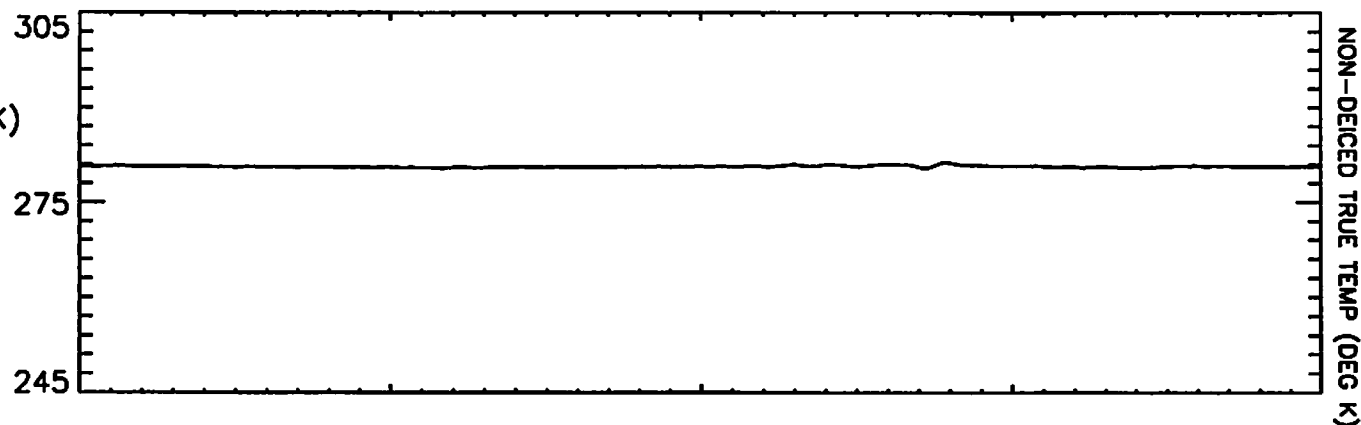
NON-DEICED IND TEMP (DEG K)

Parameter no. 524  
No. of obs 1077  
Mean 285.111  
Standard dev 0.277922  
Max value 286.613  
Min value 284.504



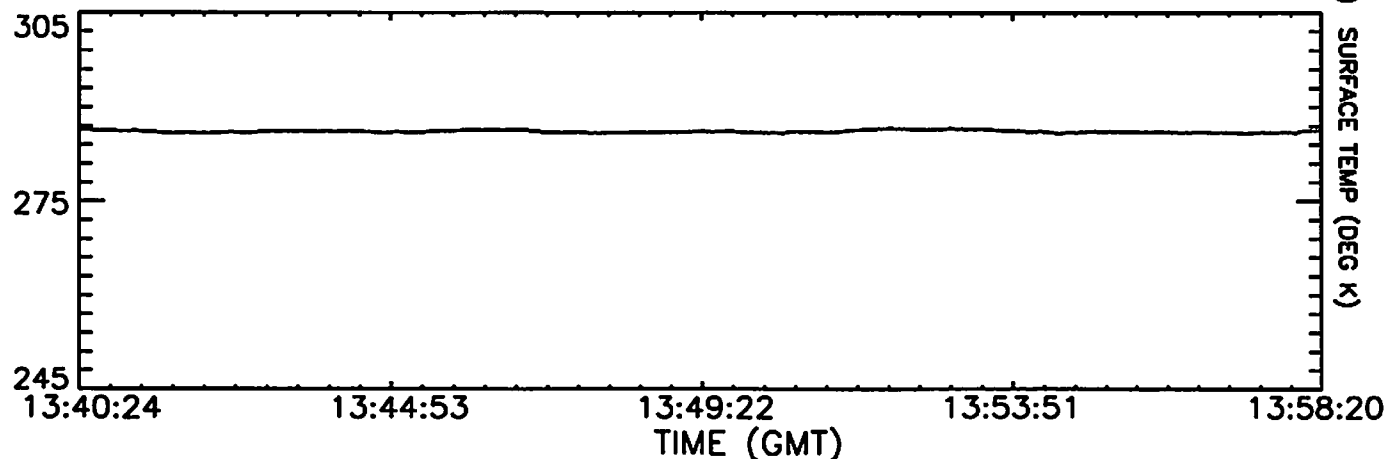
NON-DEICED TRUE TEMP (DEG K)

Parameter no. 525  
No. of obs 1077  
Mean 280.665  
Standard dev 0.135378  
Max value 281.340  
Min value 280.388



SURFACE TEMP (DEG K)

Parameter no. 537  
No. of obs 1077  
Mean 286.141  
Standard dev 0.193268  
Max value 286.723  
Min value 285.783



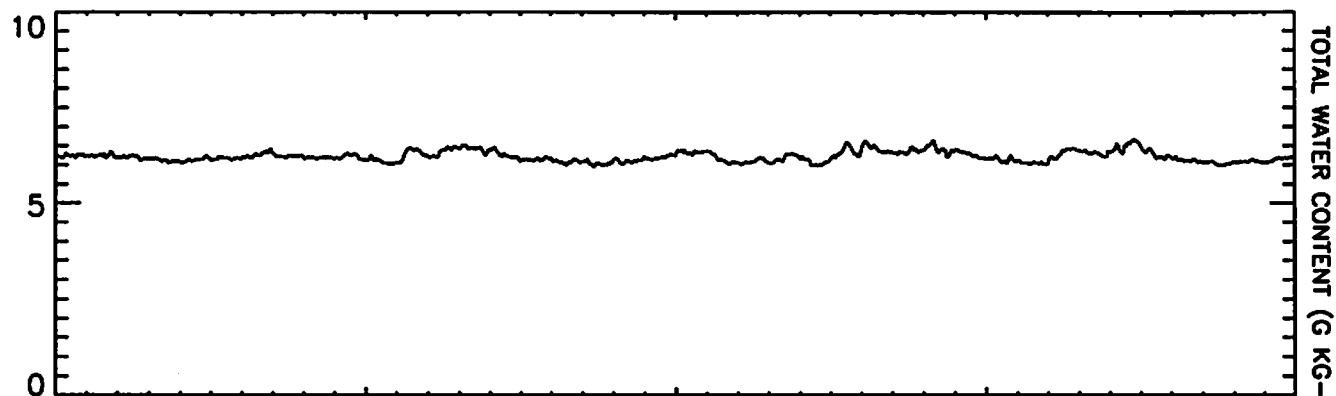
1 second averages

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Run no. R8

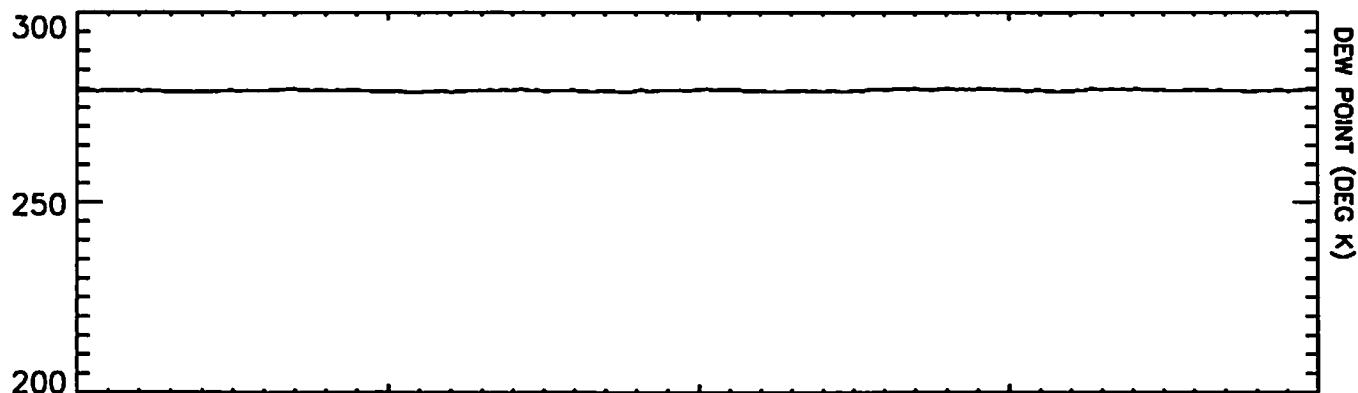
TOTAL WATER CONTENT (G KG-1)

Parameter no. 572  
No. of obs 1077  
Mean 6.22072  
Standard dev 0.135219  
Max value 6.66361  
Min value 5.96320



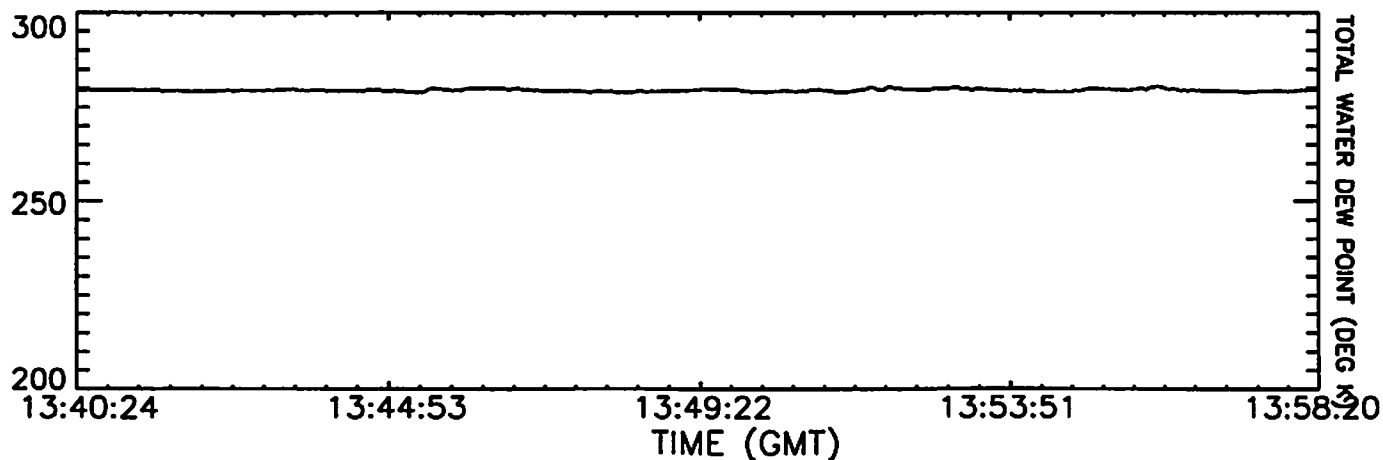
DEW POINT (DEG K)

Parameter no. 529  
No. of obs 1077  
Mean 279.529  
Standard dev 0.208447  
Max value 280.066  
Min value 279.081



TOTAL WATER DEW POINT (DEG K)

Parameter no. 725  
No. of obs 1077  
Mean 279.479  
Standard dev 0.311787  
Max value 280.476  
Min value 278.879



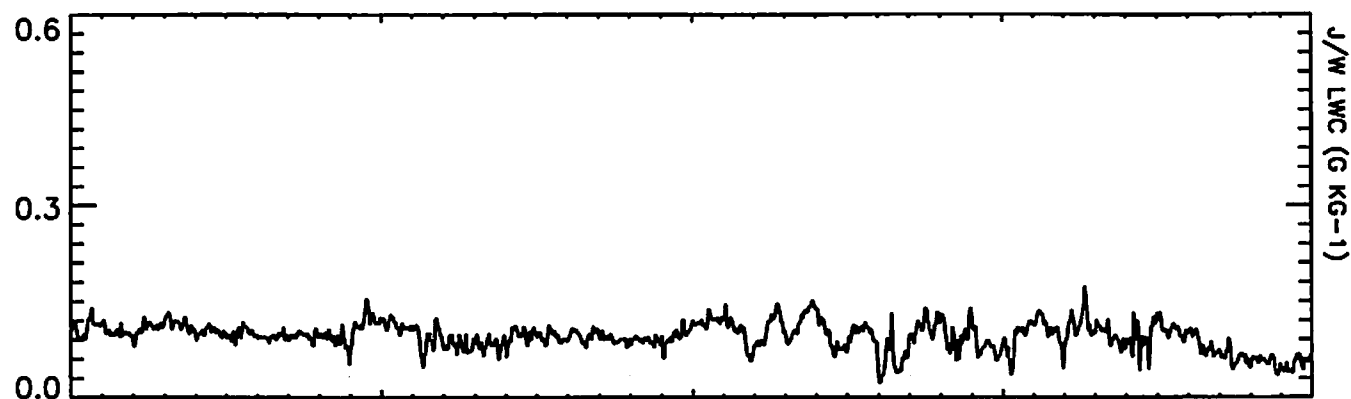
1 second averages

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Run no. R8

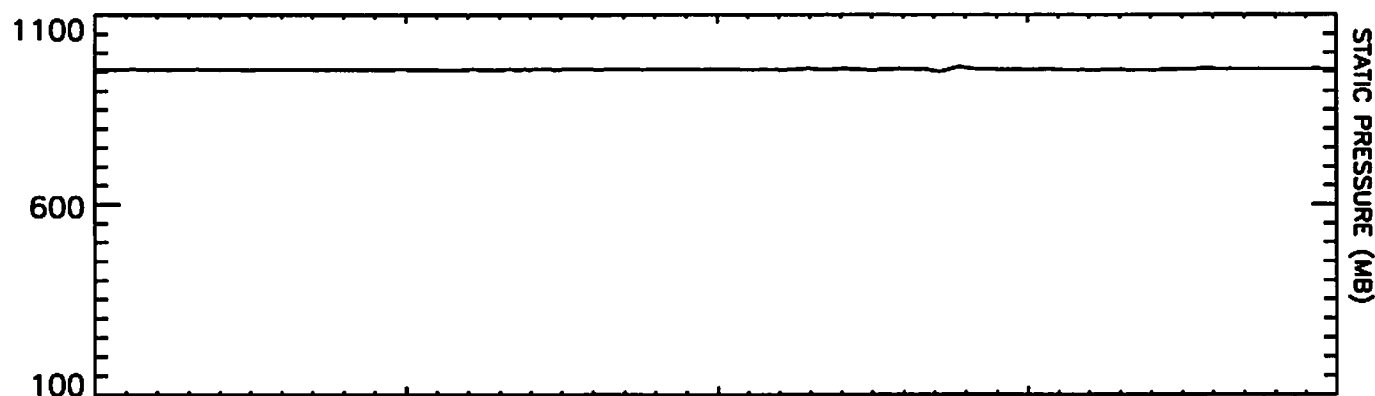
J/W LWC (G KG-1)

Parameter no. 535  
No. of obs 1077  
Mean  $9.555003e-02$   
Standard dev  $2.191894e-02$   
Max value 0.173196  
Min value  $2.330973e-02$



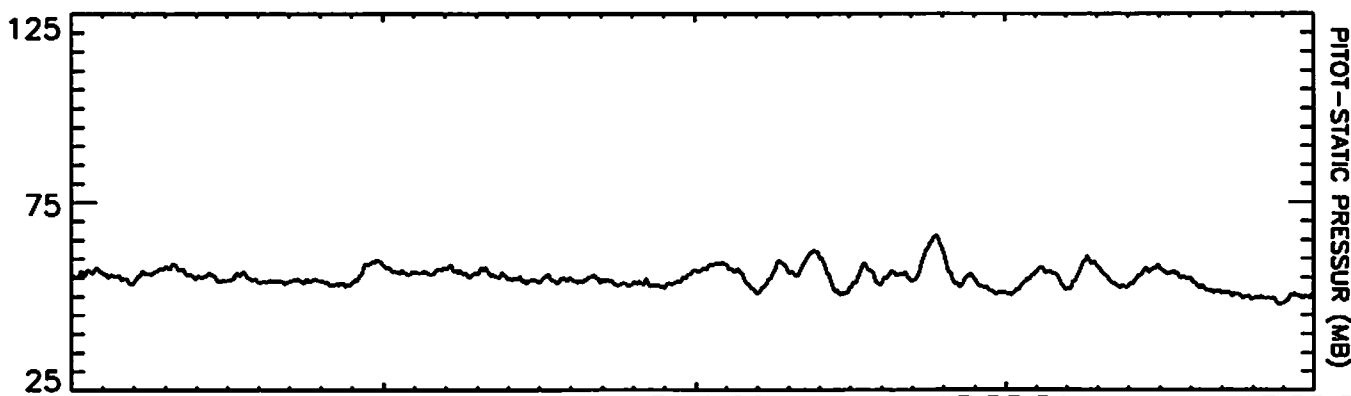
STATIC PRESSURE (MB)

Parameter no. 576  
No. of obs 1077  
Mean 956.766  
Standard dev 1.19199  
Max value 963.245  
Min value 951.908



PITOT-STATIC PRESSUR (MB)

Parameter no. 577  
No. of obs 1077  
Mean 54.9449  
Standard dev 2.75004  
Max value 66.2393  
Min value 47.8624



13:40:24 13:44:53 13:49:22 13:53:51 13:58:20  
TIME (GMT)

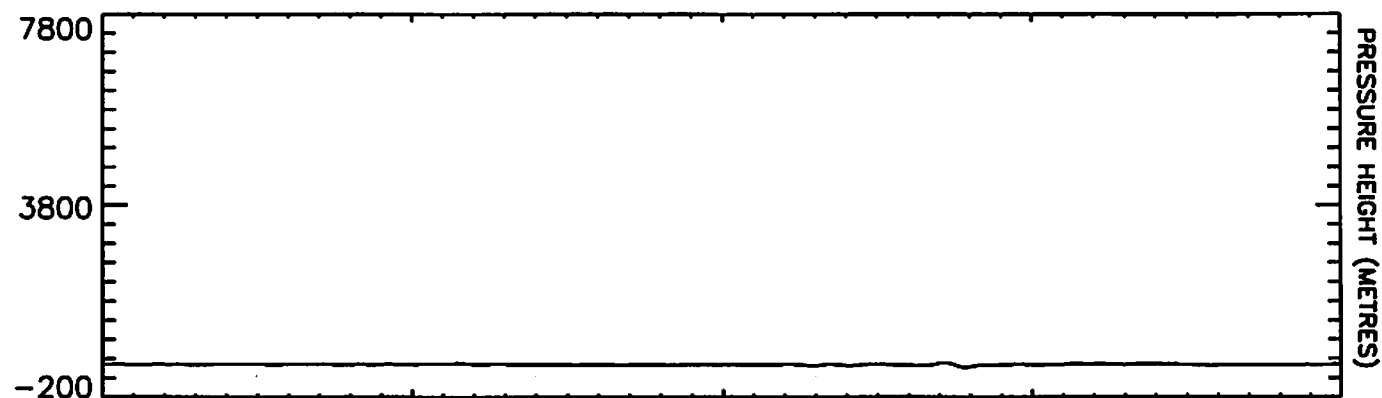
1 second averages

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Run no. R8

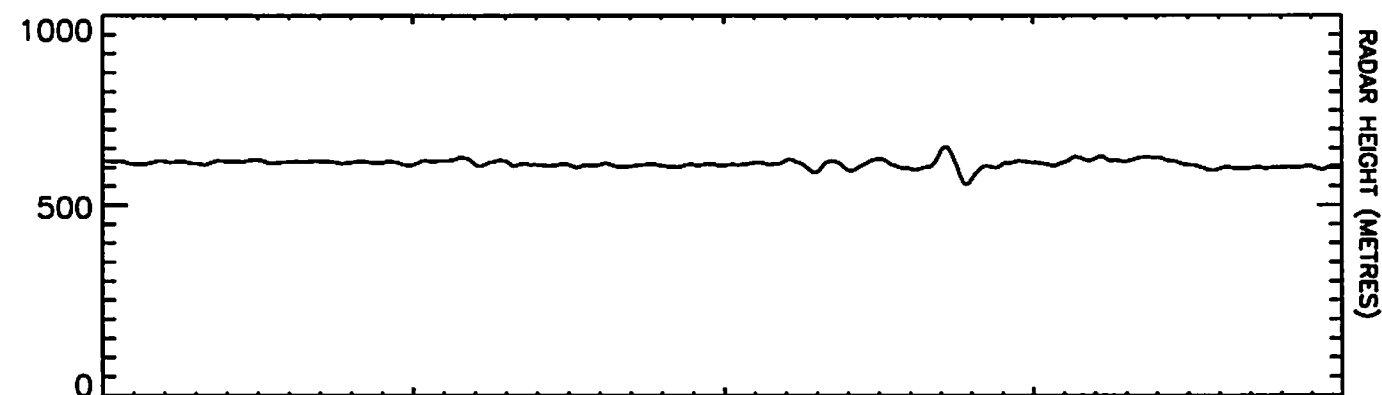
PRESSURE HEIGHT (METRES)

Parameter no. 578  
No. of obs 1077  
Mean 481.166  
Standard dev 10.3891  
Max value 523.607  
Min value 424.818



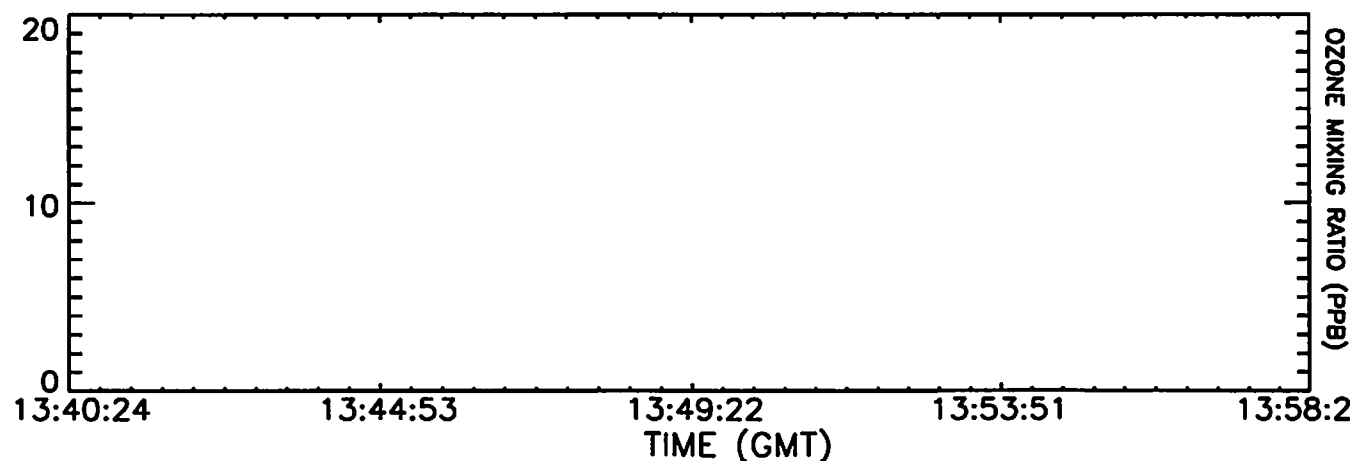
RADAR HEIGHT (METRES)

Parameter no. 575  
No. of obs 1077  
Mean 609.559  
Standard dev 10.3845  
Max value 653.661  
Min value 554.788



OZONE MIXING RATIO (PPB)

Parameter no. 574  
No. of obs 1077  
Mean 0.000000  
Standard dev 0.000000  
Max value 0.000000  
Min value 0.000000



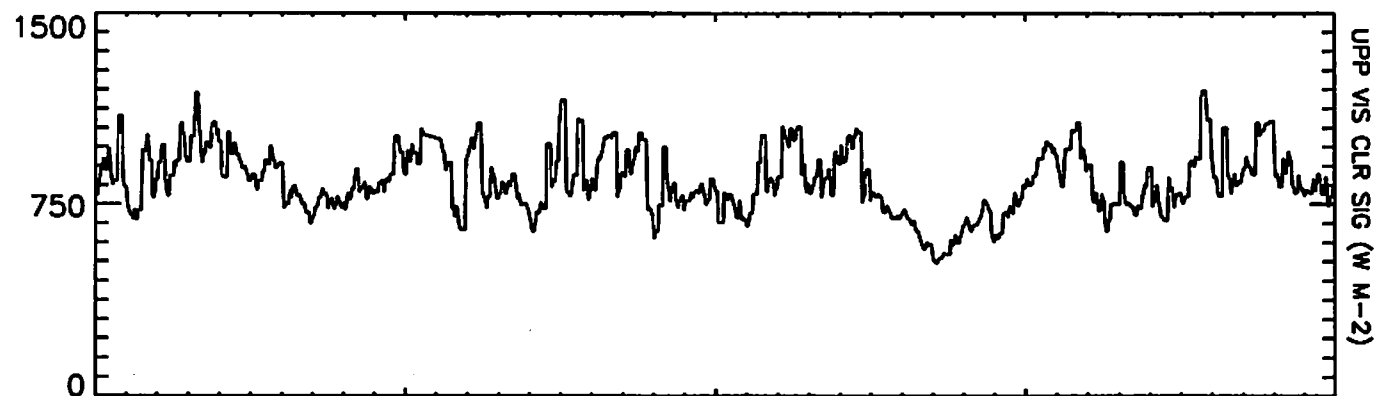
1 second averages

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Run no. R8

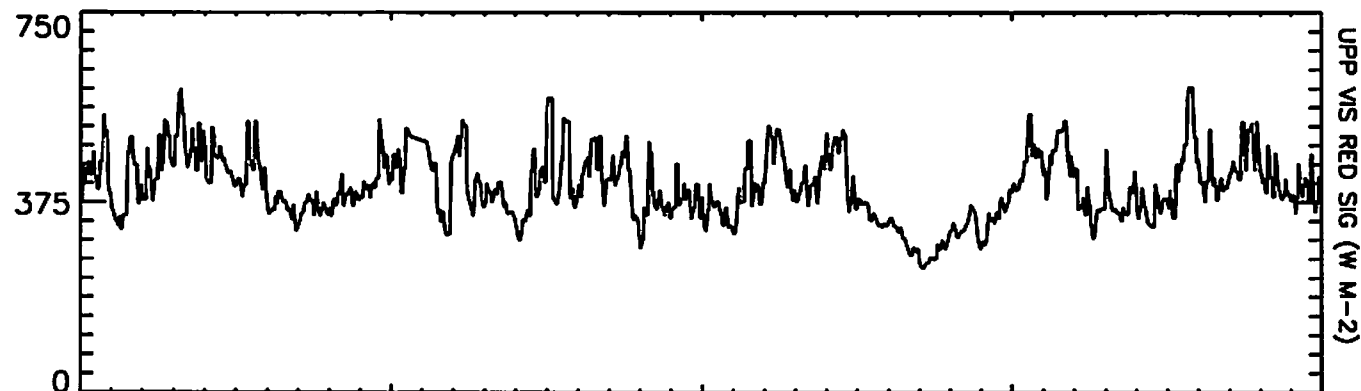
UPP VIS CLR SIG (W M-2)

Parameter no. 673  
No. of obs 1077  
Mean 842.195  
Standard dev 126.132  
Max value 1195.74  
Min value 521.700



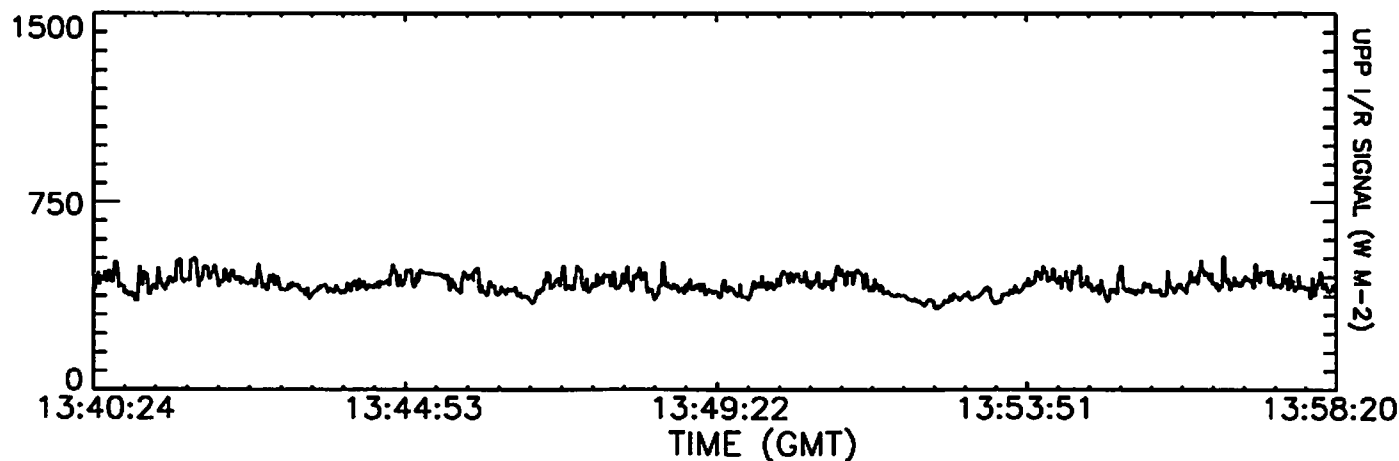
UPP VIS RED SIG (W M-2)

Parameter no. 674  
No. of obs 1077  
Mean 405.844  
Standard dev 66.1645  
Max value 602.446  
Min value 244.647



UPP I/R SIGNAL (W M-2)

Parameter no. 675  
No. of obs 1077  
Mean 420.167  
Standard dev 36.4448  
Max value 532.712  
Min value 322.922



1 second averages

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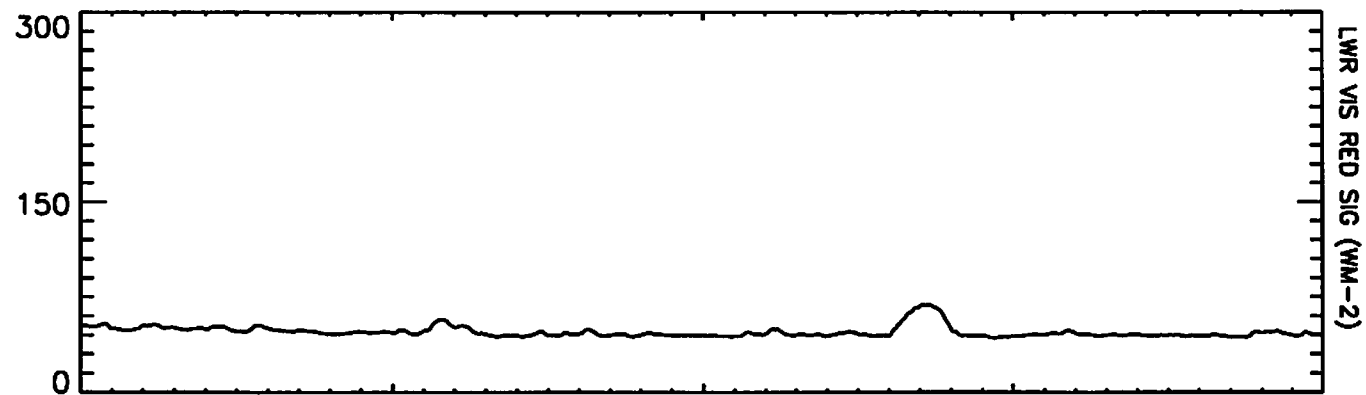
LWR VIS CLR SIG (WM-2)

Parameter no. 682  
No. of obs 1077  
Mean 95.1126  
Standard dev 8.24863  
Max value 138.306  
Min value 87.5000



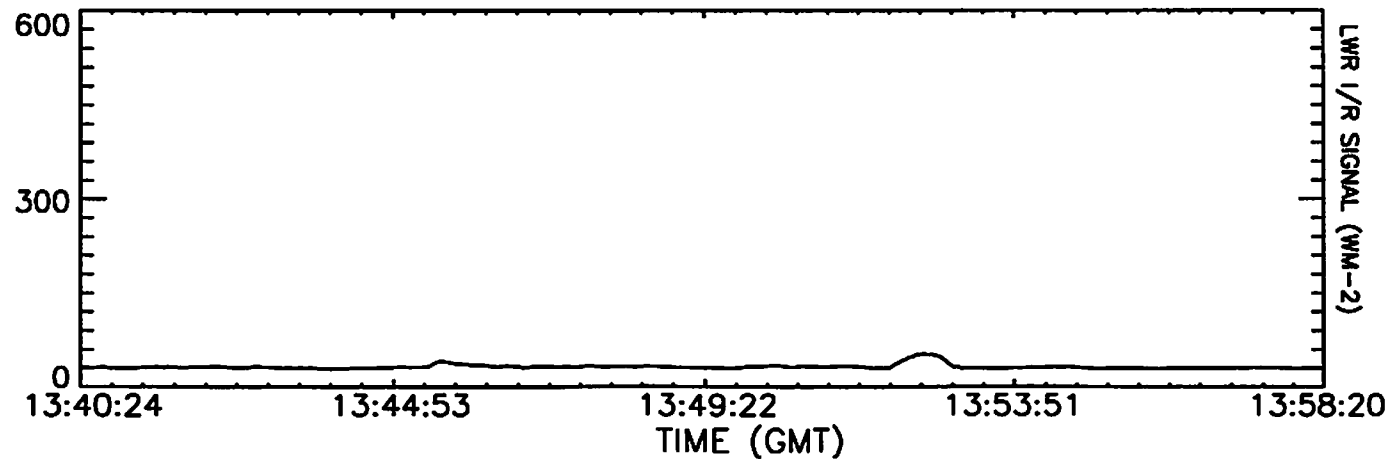
LWR VIS RED SIG (WM-2)

Parameter no. 683  
No. of obs 1077  
Mean 47.3676  
Standard dev 4.35199  
Max value 68.7860  
Min value 42.4479



LWR I/R SIGNAL (WM-2)

Parameter no. 684  
No. of obs 1077  
Mean 32.1033  
Standard dev 3.79440  
Max value 52.5977  
Min value 28.7339



1 second averages

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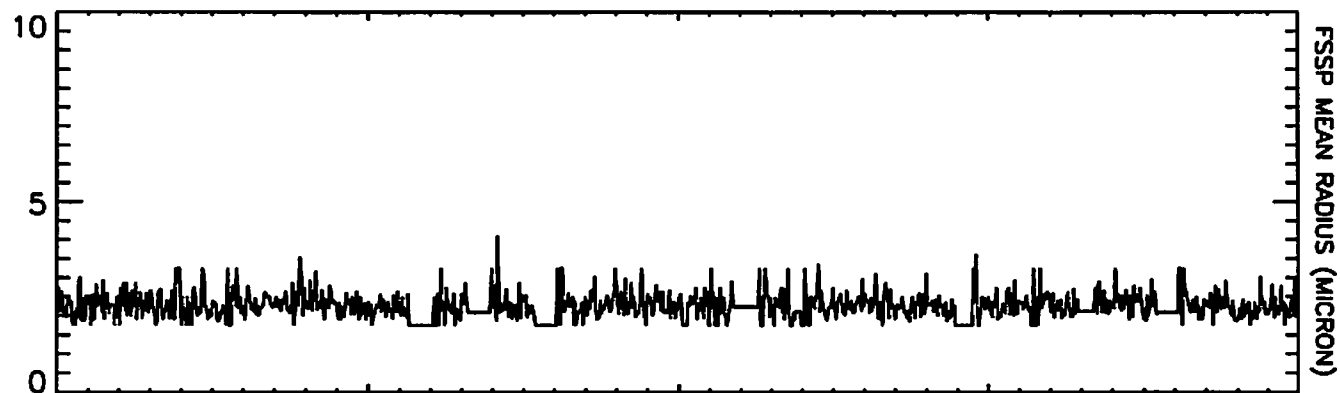
FSSP CONCENTRATION (CM-3)

Parameter no. 901  
No. of obs 1077  
Mean 0.510250  
Standard dev 0.227878  
Max value 1.07133  
Min value 2.412836e-02



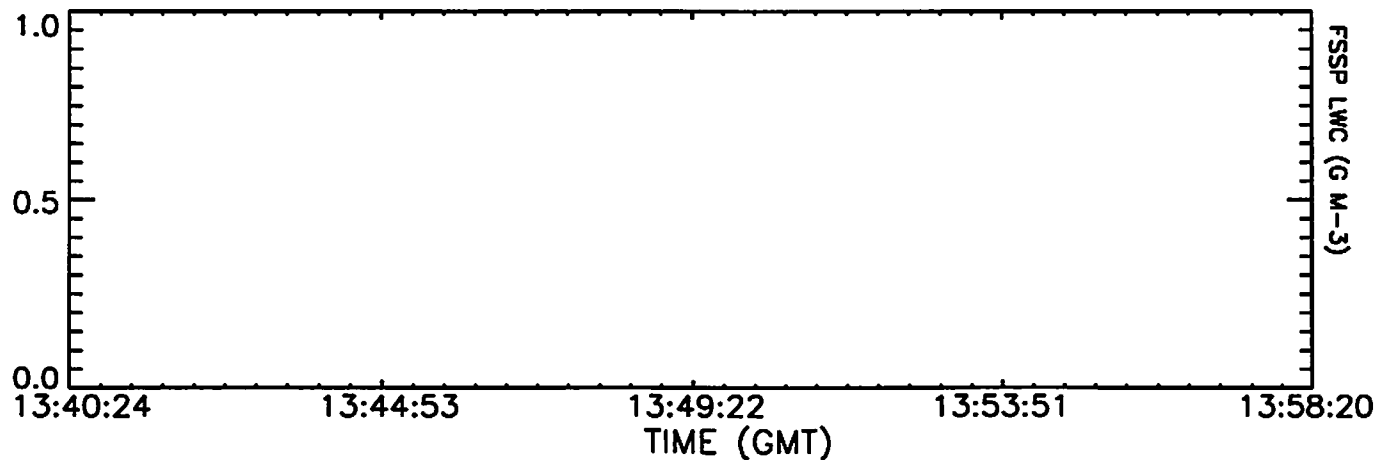
FSSP MEAN RADIUS (MICRON)

Parameter no. 902  
No. of obs 1077  
Mean 2.25875  
Standard dev 0.339103  
Max value 4.10714  
Min value 1.75000



FSSP LWC (G M-3)

Parameter no. 903  
No. of obs 1077  
Mean 4.297253e-05  
Standard dev 4.876109e-05  
Max value 9.745422e-04  
Min value 5.416816e-07



1 second averages

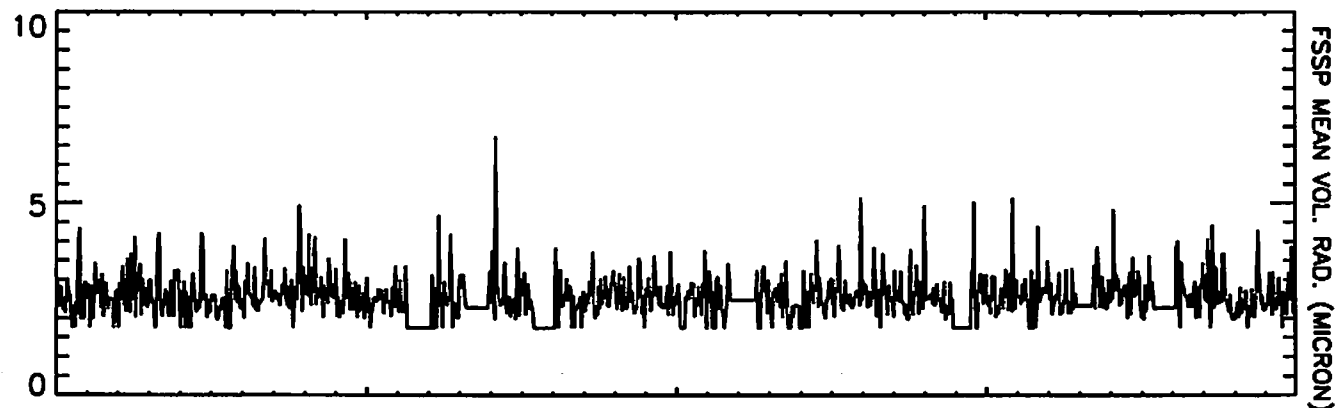


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Run no. R8

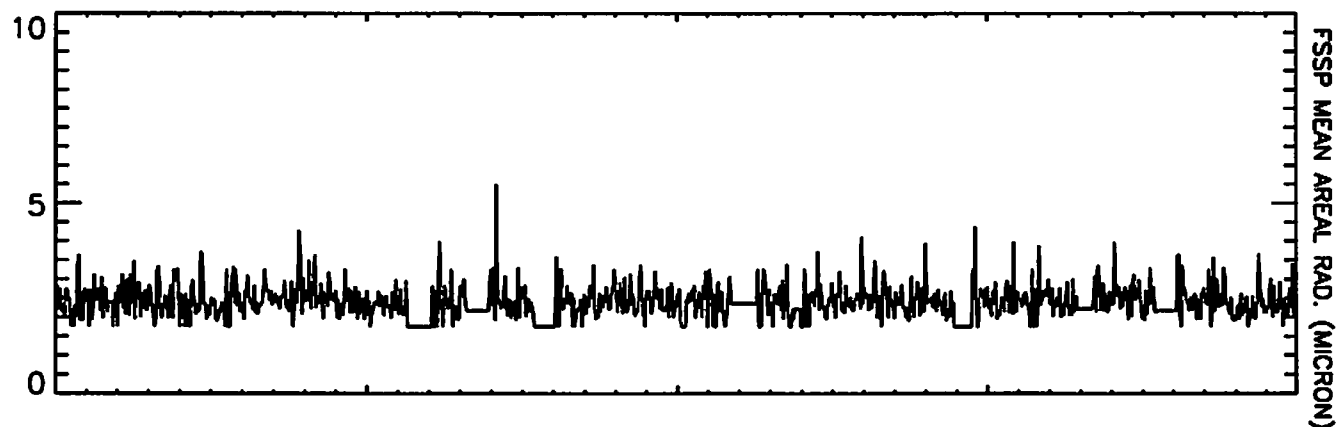
FSSP MEAN VOL. RAD. (MICRON)

Parameter no. 904  
No. of obs 1077  
Mean 2.54151  
Standard dev 0.550293  
Max value 6.73551  
Min value 1.75025



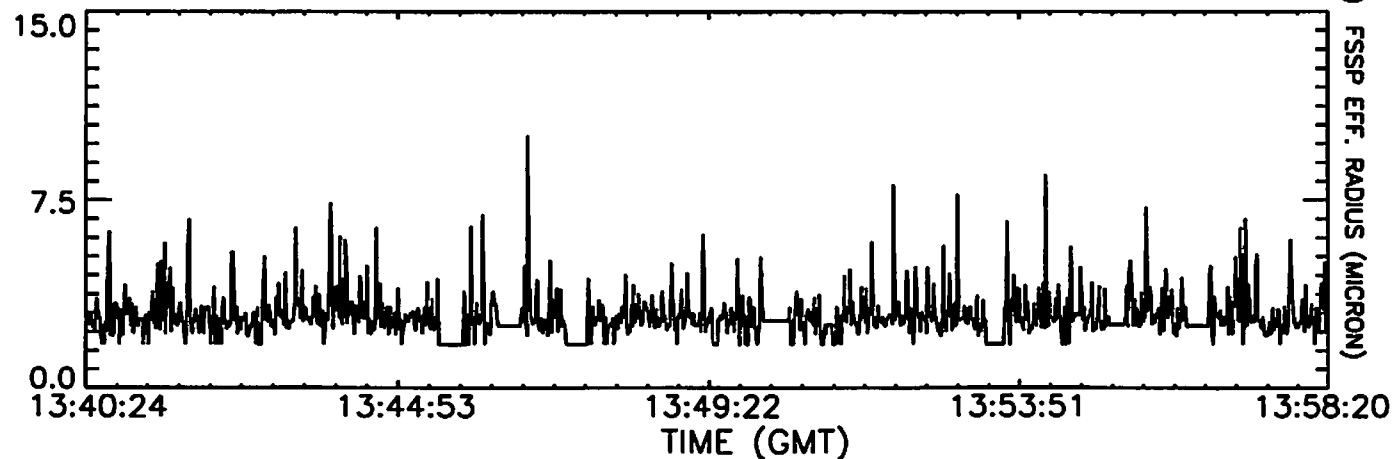
FSSP MEAN AREAL RAD. (MICRON)

Parameter no. 905  
No. of obs 1077  
Mean 2.39449  
Standard dev 0.432700  
Max value 5.50220  
Min value 1.74999



FSSP EFF. RADIUS (MICRON)

Parameter no. 906  
No. of obs 1077  
Mean 2.88155  
Standard dev 0.911056  
Max value 10.0898  
Min value 1.75008



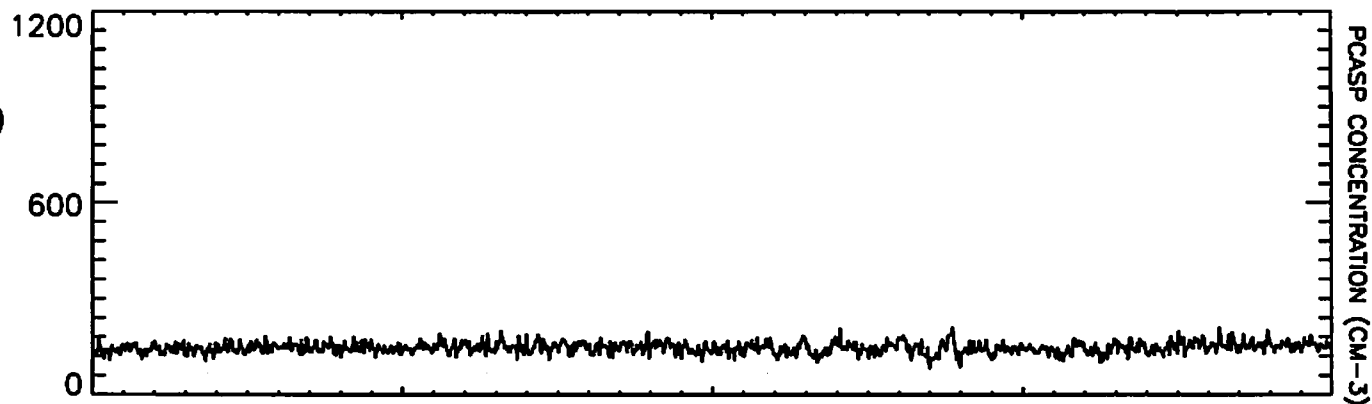
1 second averages

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Run no. R8

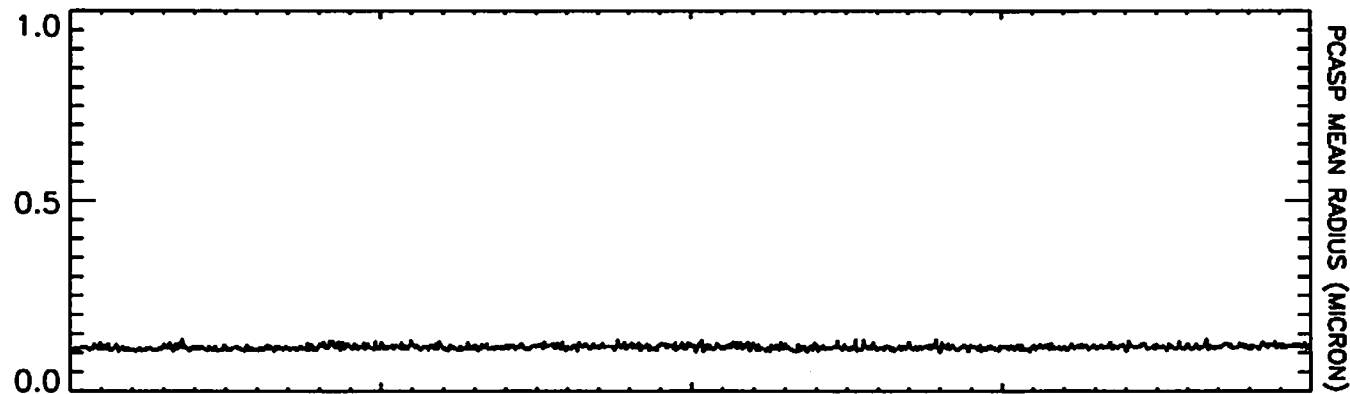
PCASP CONCENTRATION (CM-3)

Parameter no. 919  
No. of obs 1077  
Mean 146.880  
Standard dev 18.1382  
Max value 211.905  
Min value 82.0880



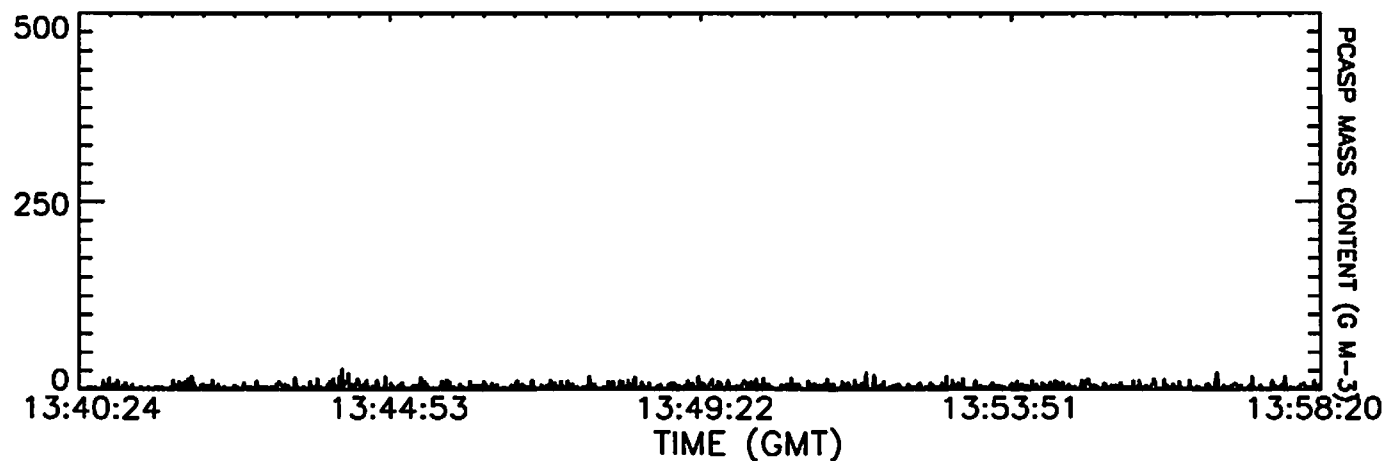
PCASP MEAN RADIUS (MICRON)

Parameter no. 920  
No. of obs 1077  
Mean 0.114703  
Standard dev 6.427622e-03  
Max value 0.137674  
Min value 0.100237



PCASP MASS CONTENT (G M-3)

Parameter no. 921  
No. of obs 1077  
Mean 3.99782  
Standard dev 3.99338  
Max value 28.3889  
Min value 0.451161



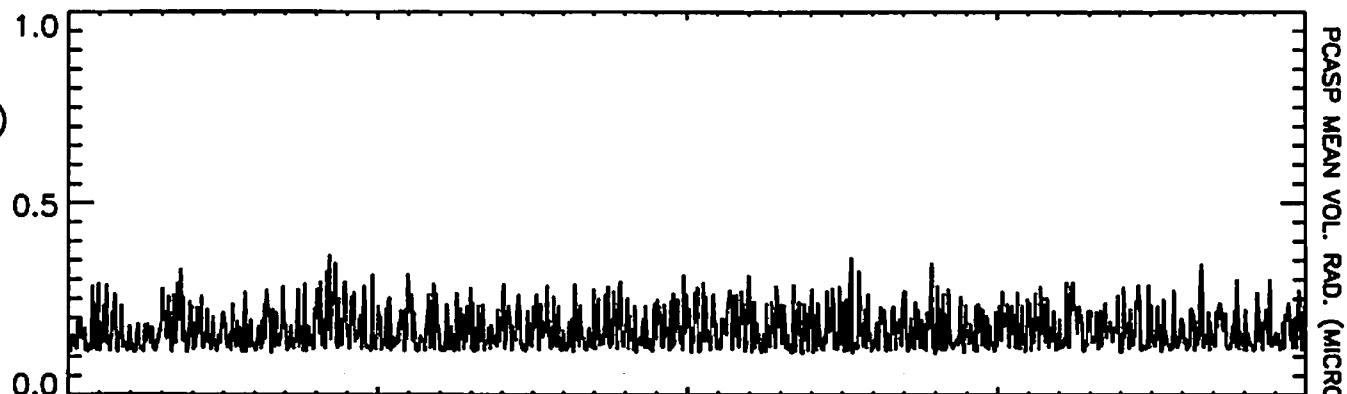
1 second averages

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Run no. R8

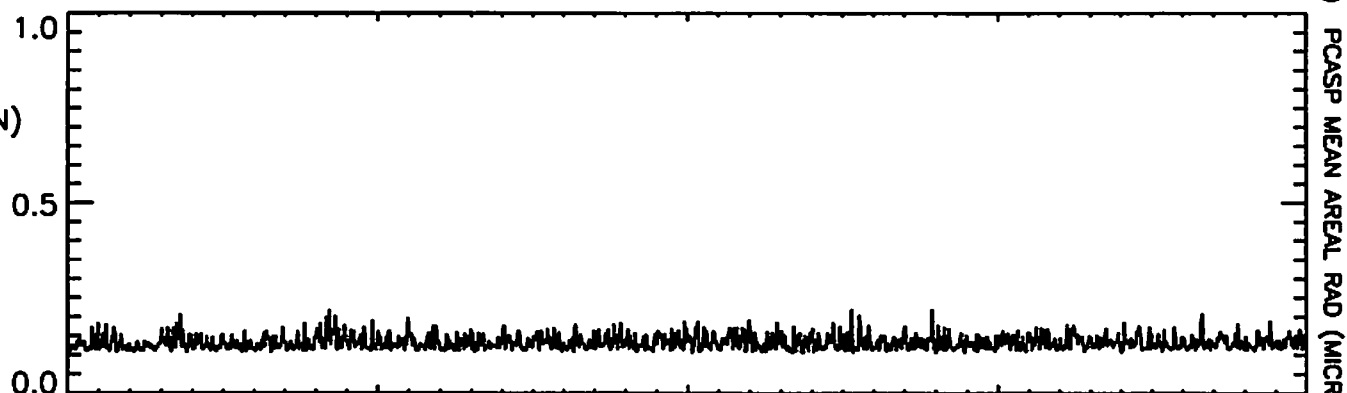
PCASP MEAN VOL. RAD. (MICRON)

Parameter no. 922  
No. of obs 1077  
Mean 0.170741  
Standard dev 5.303900e-02  
Max value 0.364296  
Min value 0.107771



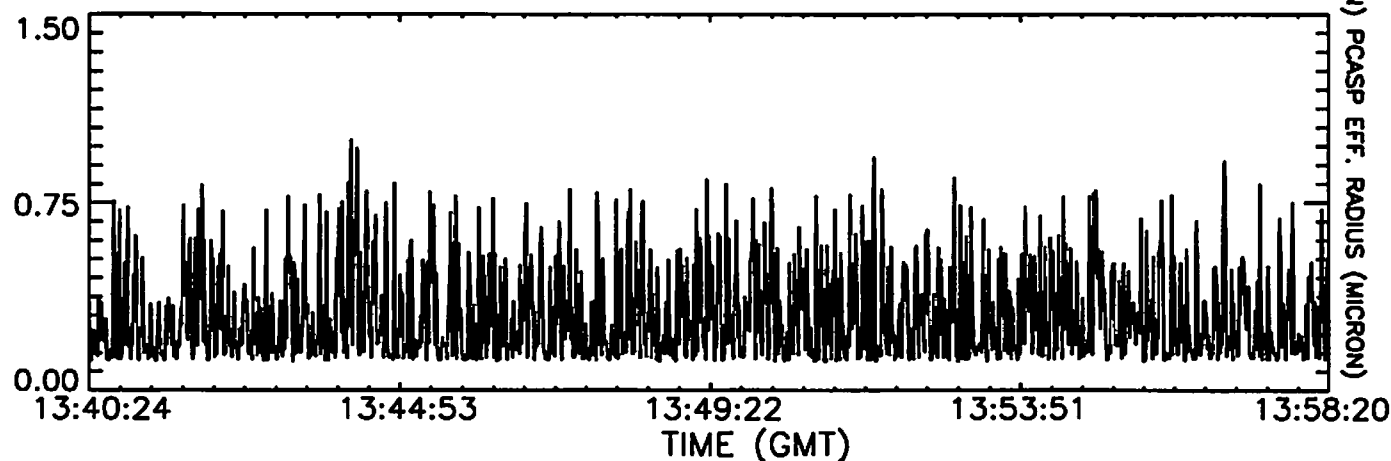
PCASP MEAN AREAL RAD (MICRON)

Parameter no. 923  
No. of obs 1077  
Mean 0.133124  
Standard dev 2.038594e-02  
Max value 0.221230  
Min value 0.104762



PCASP EFF. RADIUS (MICRON)

Parameter no. 924  
No. of obs 1077  
Mean 0.301801  
Standard dev 0.192975  
Max value 1.00402  
Min value 0.113994



1 second averages